SARA Title III Section 313
Inspection Log Sheet

Report # **15-313U 009**

Facility **Concrete Pipe & Precast LLC**
Jessup Plant

Address **7955 Dorsey Run Road**
Jessup, Maryland 20794

Date of Inspection February 19 2015

Report Completed February 19 2015

Preliminary Compliance Determination Potential nonreporter of lead (2013) CGY 2/23/15
Date Referred To RC For Review/Concurrence _____
Date Administrative Complaint signed _____
Date NCN Issued _____
Date Withdrawn _____
Date Of Close Out _____

Comments The Company was friendly and cooperative

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION III
1650 Arch Street
Philadelphia Pennsylvania 19103 2029

MAY 2 8 2015

CERTIFIED MAIL
RETURN RECEIPT REQUESTED

Mr John Blankenship
Manager
Concrete Pipe & Precast, LLC – Jessup Plant
7955 Dorsey Run Road
Jessup, Maryland 20794

RE NOTICE OF NONCOMPLIANCE EPCRA-III-15 0046

Dear Mr Blankenship

In January 2015, the Environmental Protection Agency (EPA) Region III conducted a records review of Concrete Pipe & Precast LLC located at 7955 Dorsey Run Road in Jessup Maryland ("the Facility") to determine the Facility's compliance status with Section 313 of Title III of the Emergency Planning and Community Right to Know Act of 1986 ("EPCRA") 42 U S C § 11023 and the regulations codified at 40 C F R Part 372

Based upon evidence obtained during the records review EPA has determined that Concrete Pipe & Precast, LLC violated the reporting requirements of EPCRA Section 313 and 40 C F R §§ 372 22 and 372 30, for reporting year 2013

Pursuant to Section 313 of EPCRA and 40 C F R §§ 372 22 and 372 30 the owner or operator of a facility that

1) Has 10 or more employees,
2) Has a primary Standard Industrial Classification ("SIC) code (as in effect on January 1 1987) between 2000 and 3999 or, starting January 1, 1998 has an SIC code in one or more of the following categories
    a between 1000 and 1099 except 1011 1081 and 1094
    b between 1200 and 1299, except 1241,
    c 4911, 4931, or 4939 (limited to facilities that combust coal and/or oil for the purpose of generating power for distribution in commerce),
    d 4953 (limited to facilities regulated under Resource Conservation and Recovery Act, Subtitle C, 42 U S C Section 6921)
    e 5169 or 5171,

f 7389 (limited to facilities primarily engaged in solvent recovery services on a contract or fee basis), and

3) Manufactured at least 25,000 pounds (effective 1989 and thereafter), processed at least 25,000 pounds (effective 1989 and thereafter), or 'otherwise-used ' at least 10,000 pounds (effective 1989 and thereafter) of a toxic chemical listed in 40 C F R § 372 65 during a calendar year or starting calendar year 2000 manufactured processed or "otherwise-used" the following chemicals in at least the following amounts during the calendar year for which the form is required

100 pounds – aldrin, methoxychlor pendimethalin, polycyclic aromatic compounds, tetrabromobisphenyl A, trifluralin,

10 pounds – chlordane, heptachlor mercury toxaphene isodrin, polychlorinated biphenyls, benzo(g,h,i)perylene, hexachlorobenzene, mercury compounds octachlorolead pentachlorobenzene,

0 1 grams – dioxin and dioxin like compounds

or starting calendar year 2001, manufactured, processed or otherwise-used ' the following chemicals in at least the following amounts during the calendar year for which the form is required

100 pounds – lead which is not contained in a stainless steel, brass, or bronze alloy,

100 pounds – lead compounds

is required to complete and submit a toxic chemical release form R (EPA Form 9350-1) or Form A (EPA Form 9350 2), whichever is applicable, for each such toxic chemical to EPA and the state in which the facility is located, by July 1 of the next calendar year

Information collected during the aforesaid records review indicates that the Facility at the time of the review had a primary SIC code of 3272, had greater than 10 employees during calendar year 2013 and processed more than 100 pounds of lead (not contained in a stainless steel, brass, or bronze alloy) during calendar year 2013 Lead is a toxic chemical as defined by 40 C F R § 372 3 and is listed in 40 C F R § 372 65 EPA's records indicate that your facility submitted to EPA and the State of Maryland a toxic chemical release form for lead for the 2013 calendar year on February 14, 2015, after the July 1, 2014 deadline for submitting the 2013 forms Failure to timely submit a toxic chemical release report in this manner constitutes a violation of Section 313 of EPCRA, which can result in civil administrative penalties of up to $37,500 for violations occurring after January 12, 2009 **However, after consideration of the facts in this case and the information that you have provided, at this time EPA is issuing to you a Notice of Noncompliance ("NON") in lieu of a penalty action** A NON is a warning letter that EPA may issue to alert parties of actual or potential violations, and to require corrective action where

appropriate Please ensure that your facility takes all actions in preventing future such violations, for any future non-compliance with Section 313 of EPCRA may result in the issuance of an Administrative Complaint against your facility Nothing in this NON shall relieve Concrete Pipe & Precast, LLC of any duty to comply with any applicable federal, state or local environmental laws

If you have any questions regarding this NON please contact Mr Yussen at 215 814 2151

Sincerely

Aquanetta L Dickens Chief
Toxics Programs Branch

cc Patricia Williams (MDDOE)

Yussen, Craig

From Yussen Craig
Sent Thursday May 14 2015 1 00 PM
To pwilliams@mde state md us
Subject Pending EPCRA Section 313 enforcement actions against two MD facilities

Hi Pat --

EPA at this time is planning on issuing enforcement actions against the following two (2) MD facilities for potential EPCRA 313 violaitons

Colonial Metals (Elkton, MD) -- This facility failed to timely submit to EPA and the State of Maryland a toxic chemical release report for chlorine and nickel compounds for calendar year 2013

Concrete Pipe & Precast LLC (Jessup, MD) -- This facility failed to timely submit to EPA and the State of Maryland a toxic chemical release report for lead for 2013

Please let me know if you have any questions or concerns

Craig E Yussen Chemical Engineer
U S EPA Region III
Land and Chemicals Division (3LC61)
1650 Arch Street
Philadelphia PA 19103

Phone 215 814 2151
email yussen craig@epa gov
fax 215 814 3114

tal Service

FIED MAIL RECEIPT

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FICIAL USE

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d Fee	

Blankenship

e Pipe & Precast LLC – Jessup Plant

rsey Run Road

Maryland 20794

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PS Form 3800 January 2001 *(Reverse)*

SENDER: *COMPLETE THIS SECTION*

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- Pr n your na e ard address o he e ose so that we can return the card to you
- Attach this card to the back of the mailpiece or on the front if space permits

1 Article Addressed to

Mr John Blankenship
Manager
Concrete Pipe & Precast LLC – Jessup Plant
7955 Dorsey Run Road
Jessup Maryland 20794

COMPLETE THIS SECTION ON DELIVERY

A Signature

X

☐ Agent
☐ Addressee

B Received by *(Printed Name)*

C Date of Delivery

D Is delivery address different from item 1?
If YES enter delivery address below

☐ Yes
☐ No

3 Service Type
☑ Certified Mail ☐ Express Mail
☐ Registered ☐ Return Receipt for M er handisi
☐ Insured Mail ☐ C O D

4 Restricted Delivery? *(Extra Fee)* ☐ Yes

2 Article *(Trans* 7001 2510 0001 1044 1285

PS Form 3811 August 2001 Domestic Return Receipt 102595 02 M 1(

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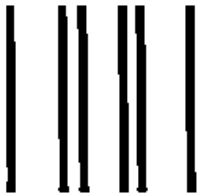

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Craig Yussen **Mail Code 3LC61**
US Environmental Protection Agency Region III
Land and Chemicals Division
1650 Arch Street
Philadelphia PA 19103

SARA TITLE III SECTION 313 EVALUATION REPORT
15-313U 009

I **Date of Evaluation** February 19, 2015

II **Facility** Concrete Pipe & Precast LLC
Jessup Plant

Address 7955 Dorsey Run Road
Jessup, Maryland 20794

NAICS	3272
Corresponding SIC code	327332
Facility's Products and Activities	Concrete Pipe Manufacturing

III **Process,** The facility produces precast concrete pipe and box culvert structures in a variety of sizes The production of concrete at this facility uses dry cast concrete batch design that is placed in forms fortified with steel reinforced wire vibrated to compact and form the pipe and then placed in a curtained steam kiln to cure The forms are reused until the production n day is complete

IV **EPA Inspector**

Abraham Reich
Inspector
Toxics Programs & Enforcement Branch (3LC61)
Phone (215) 814-2157
Email reich abraham@epa gov

V **Company Officials Contacted**

Ed Eagle
CP & P Health & Safety Director
804-752-1321

John Blankenship
804 393 8857

VI **Purpose of Evaluation**

This investigation was conducted to examine, document, and verify the facility's compliance with the reporting requirements stated in 40 C F R Part 372 under Section 313 of SARA Title III

VII SARA Title III

A plant factory, or other facility comes under the provisions of Section 313 if it meets all three of the following criteria,

1 The facility is included in Standard Industrial Classification (SIC) codes10 (except 1011, 1081, and 1094) 12 (except 1241), 20 to 39, 4911 4931 4939 (limited to facilities that combust coal and/or oil for the purpose of generating electricity for distribution in commerce), 4953 (limited to facilities regulated under the RCRA Subtitle C 42 U S C Section 6921 *et seq*), 5169, 5171, and 7389 (limited to facilities primarily engaged in solvents recovery services on a contract or fee basis) and

a Starting with calendar year 2006 EPCRA Section 313 reporting, The TRI Program required the use of North American Industry Classification System (NAICS) codes The NAICS is the economic classification system that replaces the 1987 SIC code system A Federal Register Notice was published on June 6, 2006 (71 FR 32464) adopting NAICS codes for TRI reporting A subsequent Federal Register notice was published on June 9 2008 (73 FR 32466) to incorporate 2007 OMB revisions and other corrections to the NAICS codes used for TRI reporting

2 It has 10 or more full-time employees (or the equivalent 20 000 hours per year), and

3 It manufactures (including imports), processes, or otherwise uses a listed toxic chemical during any calendar year in amounts greater than the threshold quantities specified below

Thresholds are specific amounts of toxic chemicals used during the calendar year that triggers reporting requirements

a. If a listed toxic chemical is manufactured, imported or processed the threshold quantity is **25,000 pounds** per toxic chemical or category over the calendar year

b If a listed toxic chemical is otherwise used (without incorporating it into any product or producing it at the facility) the threshold quantity is **10,000 pounds** per toxic chemical or category over the calendar year

c **Starting with calendar year 2000,** manufactured, processed, or otherwise use thresholds of these additional chemicals also called Persistent Bioaccumulative Toxic Chemicals (PBT) are as follows

i **100 pounds** - aldrin, methoxychlor, pendimethalin, polycyclic aromatic m compounds tetrabromobisphenyl A, trifluralin,

ii **10 pounds** - chlordane, heptachlor, mercury, mercury compounds, toxaphene, isodrin, polychlorinated biphenyls, benzo(g h i)perylene, hexachlorobenzene, octachlorostyrene pentachlorobenzene

iii **0 1 grams** dioxin and dioxin – like compounds

4 **Starting with calendar year 2001** manufactured, processed, or "otherwise use of the chemical lead in amounts greater than or equal to the amounts specified a Form R is required

100 pounds	Lead which is not contained in stainless steel, brass, or bronze alloy
100 pounds	lead compounds

5 A Federal Register notice was issued on October 17, 2011 (76 FR 64022) announcing that EPA is lifting the Administrative Stay of the EPCRA section 313 toxic chemical release reporting requirements of hydrogen sulfide (H2S, CAS No 7783 06 4) Reporting for H2S is required for RY 2012 reporting (reports due by July 1, 2013) i e for Form R and Form A Certification Statements

6 A rule was published on November 7, 2013 (78 FR 216) adding o-nitrotoluene to the TRI chemical list Reporting for this chemical began in Reporting 2014 for forms due to EPA on July 1, 2015

7 A rule was published on September 30, 2014, adding a nonylphenol category to the TRI chemical list of reportable chemicals Reporting for his chemical category is required on reporting forms due to EPA on July 1, 2016

VIII Request for Information

On January 29 2015, a Request for Information letter (RFIL) pertaining to SARA Title III Section 313 was sent to CP & P LLC (attachment A) On January 29, 2015, prior to sending the RFIL the company was telephoned to determine why it had not filed a required Form R report for the year 2013 (the facility had filed for 2011 and 2012), and if an evaluation was warranted (attachment C1)

During the initial conversation with Mr Blankenship the inspector was told that data for the reporting years 2011 and 2012 were not available Therefore the inspector concentrated on reporting year 2013 The Facility on February 6, 2015, emailed 2013 data to the Inspector Examination of this information indicated that a Form R for reporting year 2013 should have been filed for Lead The company was then requested to comply with the RFIL

IX Information Review

On February 19 2015 the complete information requested from CP & P was received and examined The required "Information Certification" was provided and signed by Ed Eagle CP & P Health & safety Director (attachment B) Section 313 compliance was the primary focus of the evaluation Mr Eagle indicated that the plants primary NAICS Code is 327332 The evaluation of the data involved determining if the plant manufactured, processed, or otherwise used any one of the listed toxic chemicals in excess of the threshold in calendar year 2013

It was noted in the February 6 2015 email to the inspector from Mr Eagle that Mr Blankenship had filled out the report but did not send it in and it was an oversight on his and Mr Blankenship s part

According to the information provided by the company, the number of employees at the site and total corporate sales for the years being examined are as follows

	2011	2012	2013
Employees (approximately)	45	45	40
Sales (approximately)	NOT PROVIDED		MM

For the investigation, the company had compiled summaries of usages of Section 313 chemicals as shown in attachment C3 The Section 313 chemicals are summarized as follows

CAS Number	Chemical	Usage in Pounds 2013
7439 92 1	LEAD	150 02

X Follow-up

During a telephone conversation between the inspector and Mr Blankenship on Friday, February 6, 2015, the inspector informed him that the emailed data that was submitted by him indicated that the usage of Lead apparently exceeded the applicable thresholds for toxic chemical release reporting for calendar year 2013 The inspector then advised Mr Blankenship to submit, via Central Data Exchange (CDX), the required toxic chemical release report for the chemical as soon as possible and to provide the inspector a copy of the CDX receipt In addition comply with the RFIL

XI Attachments

- **A** Request for Information
- **B** Information Certification Letter
- **C** **1** Initial Telephone Call Record
  2 RFIL

Summary of Findings

CP & P LLC did not submit a Form R under Section 313 of SARA Title III for the reporting year 2013 The record showed that the facility had greater than 10 employees (40 for the year being examined) and is in a covered NAICS Code 327332 In addition the record showed that the facility **did exceed the applicable threshold** for the following listed Section 313 chemical

Chemical	Year	Manufacturing (M) Processing (P) Otherwise Use (O) Amount -Lbs	Threshold for Reporting -Lbs	Report Due
Lead	**2013**	**150**	**100**	**Y**

15-3134-009

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION III
1650 Arch Street
Philadelphia, Pennsylvania 19103 2029

January 29, 2015

Mr John Blankenship
Concrete Pipe & Precast LLC –Jessup Plant
7955 Dorsey Run Road
Jessup, Maryland 20794

Re Request For Information

Dear Mr Blankenship

This letter is to follow up your January 29, 2015 telephone conversation with Mr Abraham Reich of my staff Based on that telephone conversation EPA is requesting additional information from you regarding your company's facility located at 7955 Dorsey Run Road Jessup, MD 20794 to determine the Concrete Pipe & Precast LLC s compliance status with Section 313 of the Emergency Planning and Chemical Reporting Act (EPCRA), which has been codified at 40 C F R Part 372, Subpart B Reporting Requirements) The Disclosure Rule was promulgated pursuant to Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986

Specifically, please submit to Mr Reich, for his review, via mail or pdf the following information

1 The facility's primary SIC and NAICS code
2 The facility's total corporate sales during years 2013,
3 The number of people employed at the facility during years 2011 2012 and 2013
4 A list of all chemicals and amounts (lbs) subject to EPCRA Section 313 manufactured (either directly or incidentally), processed, or used at the facility during year 2013,
5 Throughput data of all raw materials containing chemicals subject to EPCRA Section 313 for year 2013,
6 Material Safety Data Sheets of all raw materials and mixtures containing chemicals subject to EPCRA Section 313 used during year 2013
7 A brief description of facility s background and operations
8 A facility map and plot plan,
9 A brief summary and flow diagrams of the facility s processes

Please submit this information to Mr Reich within ten (10) business days after receiving this letter Mr Reich's contact information is as follows

Abraham Reich
U S Environmental Protection Agency-Region III
Land & Chemicals Management Division
Toxics Programs Branch (3LC61)
1650 Arch Street
Philadelphia, PA 19103-2029

Phone 215-814-2157
Fax 215 814-3114

Email r abraham@epa gov

On the last page of the company's response, the following certification should be signed by an officer or other responsible corporate official (e g president, secretary, treasurer or vice president) in charge of a principal business function, or another executive with authority to perform similar policy or decision making functions of your corporation

'I certify that I am fully authorized by Concrete Pipe & Precast LLC to provide the above information on its behalf to the U S Environmental Protection Agency regarding the upcoming inspection I certify under penalty of law that this response and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief true, accurate and complete I am aware that there are significant penalties for submitting false information including the possibility of fines and imprisonment for knowing violations

Signature _____
Name _____
Title _____

Concrete Pipe & Precast LLC is entitled to assert a claim of business confidentiality covering all or any part of the information it submits in the manner described in 40 C F R Section 2 203(b) Information subject to a claim of business confidentiality will be made available to the public only in accordance with the procedures set forth in 40 C F R Part 2, Subpart B If a claim of business confidentiality is not asserted at the time the required information is submitted to EPA EPA may make this information available to the public without further notice to you

This request for submission of information is not subject to the approval requirements of the Paperwork Reduction Act of 1980, 44 U S C Section 3501 *et seq*

If you have any questions or concerns, you may contact me at 215 814 2151 or Mr Reich at 215 814-2157 Thank you for your cooperation in this matter

Sincerely

Craig E Yussen Chemical Engineer
Toxics Programs Branch

Enclosure

ATTACHMENT C

EPA Region III
Initial Telephone Call Record

Date of Call January 29, 2015

Facility Name Concrete Pipe & Precast LLC – Jessup Plant

Facility Address 7970 Waterloo Road
Jessup, Maryland 20794

County Howard

Phone Number 804-393-8857

Facility Contact John Blankenship

Inspector Making Call A Reich

NAICS 327332 **EMP** **Fac Size** **K Square ft** **$ MM**
SIC

Call spoke to ~~David 12-10, will check with corporate safety and get back to me.~~

Request Info

1)	Are you familiar with SARA Title III? (If yes, move to question 2 If no, give a brief explanation)	Yes ____	No____
2)	Are you familiar with Section 313 of SARA Title III?	Yes____	No____
3)	Did you report under Section 313 for the 2011 Reporting Year?	Yes__x___	No____
4)	Did you report under Section 313 for the 2012 Reporting Year?	Yes__x___	No____
5)	Did you report under Section 313 for the 2013 Reporting Year?	Yes____	No__x___

Business concrete pipe manufacturing

6) Do you use any chemicals at your facility? Yes _____ No _____

7) Do you use any Section 313 Chemicals? Yes _____ No _____
Section 313 chemicals Used _____
_____
_____
_____

8) Did you determine if you are subject to Section 313 reporting? Yes _____ No _____

9) Did your facility report under Section 302 (Notification of SERC if an EHS is present on your site at quantities above TPQ's) and Section 303 (If subject to Section 392, notified LEPC of a selection of a facility representative) Yes _____ No _____

10) Did your facility report under Section 311 (Submission of MSDS's or a list of MSDS chemicals to SERC, LEPC, and local fire departments by 10 17/87 if applicable thresholds were exceeded)
Yes _____ No _____

11) If your facility needed to comply with Section 311, did your facility submit the required Tier I or Tier II forms to the appropriate agencies for

A) The 20__ Reporting year by 03/01/ __? Yes _____ No _____

B) The 20__Reporting year by 03/01/ __? Yes _____ No _____

C) The 20__Reporting Year by 03/01/ __? Yes _____ No _____

D) The 20__Reporting Year by 03/01/ __? Yes_____ No_____

12) Did the phone call result in an inspection? Yes _____ No _____
If yes, Date _____, and Time _____

13) Comments _____
_____
_____
_____
_____
_____
_____

EPA

Logged in as ABEREICH (Logout)

eFDP Regional Component

Facility Search Results

The Facility Search Results are organized by reporting year and TRIFID users may sort the results by clicking on a specific column title

The table includes the following data elements eFDP Facility Launch TRIFID Facility Name State Region Zip Code and the Last Date the Facility updated any information in TRIPS

Users may expand a form specific eFDP Subtable by clicking on the + next to the TRIFID The Subtable provides the eFDP Chemical Launch Icon Reporting Year Document Control Number Chemical Abstract Number Chemical Name Form Type Media Type Revision Withdraw Error Type Postmarked Date and Processed Date

Search Criteria

TRIFID 20794HNSNP797WA

Reporting Year Range 2010-2013

One item found

eFDP	TRIFID	Facility Name	State	Region	Zip Code	Last Updated Date
	−20794HNSNP797WA	CONCRETE PIPE & PRECAST LLC JESSUP PLANT	MD	3	20794	2013 05 24

eFDP	Year	DCN	CAS #	Chemical	Form	Media	R	W	Active	Error	Postmarked	Processed
	2012	1312209984766	7439921	LEAD	R	TRI MEw b	N	N	Yes	No e	2013 05 24	2013 05 24
	2011	1311209068319	7439921	LEAD	R	TRI MEweb	No	No	Yes	NOTE	2012 06 05	2012 06 05
	2010	1310208380939	7439921	LEAD	R	TRI MEw b	No	No	Yes	No	2011 06 28	2011 06 28

Export all search results CSV |Excel

EPA United States Environmental Protection Agency

Envirofacts Warehouse | Toxics Release Inventory | Report Error

EZ Query | Batch Reports | Form R Reports

Overview | Law | EXIT EPA | Customized Query | State Reports | Query | Model | Feedback | EF Home

TRI FORM R REPORTS

TRI Facility ID Beginning with 20794HNSNP797WA
Reporting Year Selected 2012
Query Executed On NOV-24-2014
Results are based on data extracted on OCT-08 2014

PART I FACILITY IDENTIFICATION INFORMATION *(FORM R)*

DOCUMENT CONTROL NUMBER 1312209984766

more info Facility Registry System ID 110020059103

Section 1 Reporting Year

Reporting Year 2012

Section 2 Trade Secret Information

2 1 Trade Secret NO

2 2 Sanitized Copy Unsanitized

Section 3 Certification

CERTIFYING OFFICIAL S NAME	CERTIFYING OFFICIAL'S TITLE	CERTIFYING OFFICIAL'S SIGNATURE	DATE SIGNED
JOHN BLANKENSHIP	MANAGER	Electronic	24 MAY 13

Section 4 Facility Identification

TRI Facility ID 20794HNSNP797WA

4 1 Facility Name and Address

Facility Information

NAME	STREET	CITY	COUNTY	STATE	ZIP CODE
CONCRETE PIPE & PRECAST LLC JESSUP PLANT	7970 WATERLOO RD	JESSUP	HOWARD	MD	20794

BIA Tribal Code **Tribe**
NO DATA NO DATA

Mailing Information

NAME	STREET	CITY	STATE	ZIP CODE
CONCRETE PIPE & PRECAST LLC JESSUP PLANT	PO BOX 71	JESSUP	MD	20794

PROVINCE	COUNTRY (NON - US)
NO DATA	NO DATA

4 2 Facility Classification

ENTIRE FACILITY	PARTIAL FACILITY	FEDERAL FACILITY	GOCO FACILITY
YES	NO	NO	NO

4 3 Technical Contact

NAME	PHONE	PHONE EXT	EMAIL
JOHN M BLANKENSHIP	8043938857		JBLANKENSHIP@CONCRETEPANDP COM

4 4 Public Contact

NAME	PHONE	EMAIL
JOHN M BLANKENSHIP	8043938857	JBLANKENSHIP@CONCRETEPANDP COM

4 5 NAICS Codes

NAICS CODE	PRIMARY	NAICS CODE DESCRIPTION
327332	YES	Concrete Pipe Manufacturing

4 7 Dun & Bradstreet Numbers

DUNS NUMBER
NA

5 Parent Company Information

Parent Company Name CONCRETE PIPE & PRECAST LLC

Parent Company DUNS Number NA

PART II CHEMICAL - SPECIFIC INFORMATION

DOCUMENT CONTROL NUMBER 1312209984766

Section 1 Toxic Chemical Identity

1 1 CAS Number 007439921

1 2 Toxic Chemical or Chemical Category Name LEAD

1 3 Generic Chemical Name NA

1 4 Distribution of Each Member of the Dioxin and Dioxin like Compounds Category

NA	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
NO																	

Section 2 Mixture Component Identity

2 1 Supplier Provided Generic Chemical Name NA

Section 3 Activities and Uses of the Toxic Chemical

3 1 Manufacture the Toxic Chemical
Produce NO Import NO On-Site Use/Processing NO
Sale/Distribution NO Byproduct NO Impurity NO

3 2 Process the Toxic Chemical
Reactant NO Formulation Component NO Article Component YES Repackaging NO Impurity NO

3 3 Otherwise Use the Toxic Chemical
Chemical Processing Aid NO Manufacturing Aid NO Ancillary or Other Use NO

Section 4 Maximum Amount of the Toxic Chemical Onsite During the Calendar Year

Maximum Chemical Amount 0 to 99

Section 5 Quantity of the Toxic Chemical Entering each Environmental Medium Onsite

5 1 Fugitive or Non Point Air Emissions

NA	TOTAL RELEASE (per year)	UNIT OF MEASURE	BASIS OF ESTIMATE
YES			

5 2 Stack or Point Air Emissions

NA	TOTAL RELEASE (per year)	UNIT OF MEASURE	BASIS OF ESTIMATE
NO	4 62	Pounds	E2 Emission Factor, Site-specific

5 3 Discharges to Receiving Streams or Water Bodies

NA	STREAM/WATER	TOTAL RELEASE (per	UNIT OF	BASIS OF	% FROM

	BODY NAME	year)	MEASURE	IMATE	STORMWATER
YES	NA				

5 4 1 Underground Injection Onsite to Class I Wells

NA	TOTAL RELEASE (per year)	UNIT OF MEASURE	BASIS OF ESTIMATE
YES			

5 4 2 Underground Injection Onsite to Class II V Wells

NA	TOTAL RELEASE (per year)	UNIT OF MEASURE	BASIS OF ESTIMATE
YES			

5 5 Disposal to Land Onsite

5 5 1A RCRA Subtitle C Landfills

NA	TOTAL RELEASE (per year)	UNIT OF MEASURE	BASIS OF ESTIMATE
YES			

5 5 1B Other Landfills

NA	TOTAL RELEASE (per year)	UNIT OF MEASURE	BASIS OF ESTIMATE
YES			

5 5 2 Land Treatment/Application Farming

NA	TOTAL RELEASE (per year)	UNIT OF MEASURE	BASIS OF ESTIMATE
YES			

5 5 3A RCRA Subtitle C Surface Impoundments

NA	TOTAL RELEASE (per year)	UNIT OF MEASURE	BASIS OF ESTIMATE
YES			

5 5 3B Other Surface Impoundments

NA	TOTAL RELEASE (per year)	UNIT OF MEASURE	BASIS OF ESTIMATE
YES			

5 5 4 Other Disposal

NA	TOTAL RELEASE (per year)	UNIT OF MEASURE	BASIS OF ESTIMATE
YES			

Section 6 Transfers of the Toxic Ch cal in Wastes to Off-Site Locations

6 1 Discharges to Publicly Owned Treatment Works (POTWs)

0 POTW NAME NO DATA	ADDRESS NO DATA
CITY NO DATA	STATE NO DATA
COUNTY NO DATA	ZIP CODE NO DATA

TOTAL TRANSFERS (per year)	UNIT OF MEASURE	BASIS OF ESTIMATE
NO DATA		NO DATA

6 2 Transfers to other Off Site Locations

RCRA Number	Parent Company Controlled
Name	Address
City	State
County	Zip Code
Country Code (Non - US)	Province

TOTAL TRANSFERS (per year)	UNIT OF MEASURE	BASIS OF ESTIMATE	WASTE MANAGEMENT TYPE
NO DATA		NO DATA	NO DATA

Section 7A On-Site Waste Treatment Methods and Efficiency

7A 1a Waste Stream NA

7A 1b	WASTE TREATMENT METHOD(S) SEQUENCE
1	NO DATA

7A 1d Waste Treatment Efficiency Estimate NA

Section 7B On-Site Energy Recovery Processes

ON SITE ENERGY RECOVERY PROCESSES
NA

Section 7C On-Site Recycling Processes

ON SITE RECYCLING PROCESSES
NA

Section 8 Source Reduction and Recycling Activities

SECTION	TYPE OF QUANTITY	UNITS	PRIOR YEAR	CURRENT REPORTING YEAR	FOLLOWING YEAR	SECOND FOLLOWING YEAR

8 1a	Total on-site disposal to Class I Underground Injection Wells, RCRA Subtitle C landfills, and other landfills		NA	NA	NA	NA
8 1b	Total other on site disposal or other releases	Pounds	3 28	4 62	5	5
8 1c	Total off site disposal to Class I Underground Injection Wells, RCRA Subtitle C landfills, and other landfills		NA	NA	NA	NA
8 1d	Total other off-site disposal or other releases		NA	NA	NA	NA
8 2	Quantity Used for Energy Recovery Onsite		NA	NA	NA	NA
8 3	Quantity Used for Energy Recovery Offsite		NA	NA	NA	NA
8 4	Quantity Recycled Onsite		NA	NA	NA	NA
8 5	Quantity Recycled Offsite		NA	NA	NA	NA
8 6	Quantity Treated Onsite		NA	NA	NA	NA
8 7	Quantity Treated Offsite		NA	NA	NA	NA

8 8 One-Time Event Release NA

8 9 Production Ratio 1

8 10 Source Reduction Activities

SOURCE REDUCTION ACTIVITIES	METHOD 1	METHOD 2	METHOD 3
NA			

8 11 Additional Data Indicator NO

Reich, Abraham

From Reich Abraham
Sent Friday February 06 2015 12 33 PM
To Ed Eagle
Cc Yussen Craig
Subject RE Jessup EPA letter for 2013 Reporting

Thank you for the information Ed I would appreciate your sending all of the information requested in the letter I would also suggest that you file a Form R for the 2013 If you do, also send me a copy of the CDX receipt

From Ed Eagle [mailto EEagle@concretepandp com]
Sent Friday February 06 2015 10 53 AM
To Reich Abraham
Subject Jessup EPA letter for 2013 Reporting

Good Morning Abraham
Thank you for taking the time to speak with me this morning I have attached what I believe you are looking for Mr Blankenship had filled out the report but did not send it in This was an oversight on both his and our part We can also go ahead and log the information now so it will be completed

Please let me know what else we need to do to correct this oversight as it was not intentional
Regards,

Ed Eagle
H & S Director
Concrete Pipe & Precast, LLC
11352 Virginia Precast Road
Ashland Va 23005
Office (804)752 1321
Mobile (540) 470 0581
EEagle@concretepandp com

CP&P

We are committed to making Concrete Pipe & Precast the preferred supplier for our customers by delivering outstanding value continuous innovation and an exceptional customer experience by consistently fulfilling our promise Not Just Concrete Concrete Solutions

Reich, Abraham

From Ed Eagle <EEagle@concretepandp com>
Sent Friday February 13 2015 8 50 AM
To Reich Abraham
Subject RE Jessup EPA letter for 2013 Reporting

Good Morning Abraham
I wanted to let you know that I have collected all the documentation that you requested and reviewed it with our president this morning He has signed off on the response letter and I have sent the package via FEDEX to you You should receive it Monday no later than Tuesday
If you have any questions or issues please let me know
Have a great weekend

Regards
Ed Eagle
H & S Director
Concrete Pipe & Precast LLC
11352 Virginia Precast Road
Ashland Va 23005
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Mobile (540) 470 0581
EEagle@concretepandp com

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---

From Reich Abraham [mailto Reich Abraham@epa gov]
Sent Friday February 06, 2015 12 33 PM
To Ed Eagle
Cc Yussen, Craig
Subject RE Jessup EPA letter for 2013 Reporting

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Reich, Abraham

From Ed Eagle <EEagle@concretepandp com>
Sent Friday February 06 2015 10 53 AM
To Reich Abraham
Subject Jessup EPA letter for 2013 Reporting
Attachments Jessup 2013 Data pdf

Good Morning Abraham
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The pounds of Lead and Mercury did not exceed the reporting thresholds in 2013

2013 TRI Data Concrete Pipe & Precast - Jessup					
	Cement	Fly Ash			
Metal	Proc in lbs	Proc in lbs	Totals	Released	**Deminimus Limit / Reporting Threshold**
Arsenic	117 78	3 49	121 27	0 12	1% 25 000
Barium	2682 23	1425 47	4107 69	4 11	1% 25 000
Berylium	0 00	0 00	0 00	0 00	1%, 25,000
Cadmium	19 24	3 49	22 73	0 02	1% 25 000
Chromium	1298 35	186 46	1484 81	1 48	1% 25 000
Cobalt	0 00	0 00	0 00	0 00	1% 25 000
Copper	1455 79	3 49	1459 27	1 46	1% 25 000
Lead	**129 25**	**20 77**	**150 02**	**0 15**	**none (PBT), 100**
Manganese	3537 43	9932 96	13470 39	13 47	1% 25,000
Mercury	**3 87**	0 14	4 01	0 00	**none (PBT), 10**
Nickel	748 30	3 49	751 79	0 75	1%, 25,000
Selenium	41 59	3 49	45 08	0 05	1%, 25,000
Silver	19 24	1 74	20 98	0 02	1%, 25,000
Tin	0 00	0 00	0 00	0 00	1% 25,000
Vanadium	0 00	0 00	0 00	0 00	1% 25 000
Zinc	2934 90	3 49	2938 39	2 94	1% 25 000
Processed	Cement	Fly Ash	Totals	**Production Activity Ratio**	
2013 Tons	9698	1739	11437	**2011 =**	**1 14**
2012 Tons	7029	3028	10057		

Plant Name	Concrete Pipe & Precast Jessup	
TRI Reporting Year	2013	
Cement Processed (in lbs)	19 398 000	9698 00 Tons 2013
Cement Sent For Off-site Disposal (in lbs)	0	7029 00 Tons 2012
Cement Spilled into Waterway (in lbs)	0	1 38 Production Activity Ratio (2013/2012)
		Cement

Metal	mg/kg	Metal Processed (in lbs)	Metal Released into Air (in lbs)	Metal Released into Water (in lbs)	Metal Released into Soil (in lbs)	Deminimus Limit / Reporting Threshold
Arsenic	6 06	117 78	0 12	0,00	0 00	1% 25 000
Barium	138	2682 23	2 68	0 00	0 00	1% 25 000
Beryllium		0 00	0 00	0 00	0 00	1% 25 000
Cadmium	0 99	19 24	0 02	0 00	0 00	1% 25 000
Chromium	66 8	1298 35	1 30	0 00	0 00	1% 25 000
Cobalt		0 00	0 00	0 00	0 00	1% 25 000
Copper	74 9	1455 79	1 46	0 00	0 00	1% 25 000
Lead	6 65	129 25	0 13	0 00	0 00	none (PBT) 100
Manganese	182	3537 43	3 54	0 00	0 00	1% 25 000
Mercury	0 199	3 87	0 00	0 00	0 00	none (PBT) 10
Nickel	38 5	748 30	0 75	0 00	0 00	1% 25 000
Selenium	2 14	41 59	0 04	0 00	0 00	1% 25 000
Silver	0 99	19 24	0 02	0 00	0 00	1% 25 000
Tin		0 00	0 00	0 00	0 00	1% 25 000
Vanadium		0 00	0 00	0 00	0 00	1% 25 000
Zinc	151	2934 90	2 93	0 00	0 00	1% 25 000
			Maximum Pounds	Cement on Site	Lead on Site	TRI Code
CAS # for Lead is 7439-92 1				416 000	2 77	01

Sources of Data Cement samples taken at the Dunn plant in 2006.

Plant Name	Concrete Pipe & Precast Jessup	
TRI Reporting Year	2013	
Fly Ash Processed (In lbs)	3 478 000	1739 Tons 2013
Fly Ash Sent For Off site Disposal (In lbs)	0	3028 Tons 2012
Fly Ash Spilled Into Waterway (In lbs)	0	0 57 ProductionActivity Ratio (2013/2012)
		Flyash

Metal	mg/kg	Metal Processed (In lbs)	Metal Released Into Air (In lbs)	Metal Released Into Water (In lbs)	Metal Released Into Soil (In lbs)	Deminimus Limit / Reporting Threshold
Arsenic	1	3 49	0 00	0 00	0 00	1% 25 000
Barium	409	1425 47	1 43	0 00	0 00	1% 25 000
Beryllium		0 00	0 00	0 00	0 00	1% 25 000
Cadmium	1	3 49	0 00	0 00	0 00	1% 25 000
Chromium	53 5	186 48	0 19	0 00	0 00	1% 25 000
Cobalt		0 00	0 00	0 00	0 00	1% 25 000
Copper	1	3 49	0 00	0 00	0 00	1% 25 000
Lead	5 96	20 77	0 02	0 00	0 00	none (PBT) 100
Manganese	2850	9932 96	9 93	0 00	0 00	1% 25 000
Mercury	0 04	0 14	0 00	0 00	0 00	none (PBT) 10
Nickel	1	3 49	0 00	0 00	0 00	1%, 25 000
Selenium	1	3 49	0 00	0 00	0 00	1% 25 000
Silver	0 5	1 74	0 00	0 00	0 00	1% 25 000
Tin		0 00	0 00	0 00	0 00	1% 25 000
Vanadium		0 00	0 00	0 00	0 00	1% 25 000
Zinc	1	3 49	0 00	0 00	0 00	1% 25 000
			Maximum Pounds	Fly Ash on Site 150 000	Lead on Site 0 89	TRI Code 01

CAS # for Lead is 7439 92 1

Sources of Data
EPRI PISCES Database (August 14 1998) mean value
EPRI TR 108014 Oil Combustion By Products Chemical Characteristics Management Practices and Groundwater
EPRI EA 5176 Inorganic and Organic Constituents in Fossil Fuel Combustion Residues
EPRI EA 5321 Chemical Characterization of Fossil Fuel Combustion Wastes

CONCRETE PIPE & PRECAST LLC
210 STONE SPRING ROAD
HARRISONBURG VA 22801

BANK OF AMERICA
63 1/510 VA

20112

Date 01/30/2014

$ $ 1 000 00

Sum of One Thousand & 00/100 Dollars DOLLARS

PAY TO THE ORDER OF
MDE CRTK
P O Box 1417
BALTIMORE MD 21203

MEMO

(b) (6)

CONCRETE PIPE & PRECAST, LLC 20112

Company MDE CRTK Vendor # 004558 Check No 20112

Invoice Number	Date	Invoice Notes	Invoice Balance	Discount	Adjustment	Total Applied
7231	01/24/2014		1 000 00	0 00	0 00	1 000 00

CP&P

Totals	1 000 00	0 00	0 00	1 000 00

Check Date 01/30/2014

MARYLAND DEPARTMENT OF THE ENVIRONMENT
1800 Washington Boulevard Baltimore MD 21230

Invoice Request No 7231

CRTK FUND APPLICATION

Invoice Request Date 01/24/2014

Prepared By John Blankenship

Prepared Date 01/24/2014

To

HANSON PIPE & PRODUCTS INC
CONCRETE PIPE & PRECAST LLC
P O BOX 71
JESSUP MD 20794

Company ID 528

Report Year 2013

Fee Types	FEE ($)
Hazardous Substance Total	$1 600 00
Sub Total	$1 600 00
Application Fee	$100 00
Fee Total	$1 700 00
Cap Amount	$1 000 00
Invoice Amount	$1 000 00

Payment information
Check
MDE CRTK
PO Box 1417
Baltimore MD 21203
Please include a copy of this application with your remittance

Payment by wire transfer
Name of Bank Bank of America
Address 100 S Charles Street
Baltimore MD 21202
MDE s Account Number [redacted]
Routing Number ACH [redacted]
Wire Transfer [redacted]
SWIFT Code [redacted]

Applicant hereby acknowledges that this application constitutes an amount due and payable to the Maryland Department of the Environment and failure to pay the full amount due may result in transferring this debt to the Central Collections Unit (CCU) to collect the balance due including a 17% collection fee

Emergency and Hazardous Chemical Inventory

Reporting Period From January 1 2013 to December 31 2013

☑ Annual ☐ Revision ☑ Facility information was changed since the Last Submission

Facility Identification

ID	4455		
Name	CONCRETE PIPE & PRECAST LLC		
Company Name	HANSON PIPE & PRODUCTS INC		
Street	7955 DORSEY RUN ROAD	City	JESSUP
County	Howard		
Fire Department	Howard County Fire & Rescue	LEPC Name	Howard County LEPC
State	MD	Zip	20794
Phone	(410) 799-2600	Latitude	39 152427 76 777889
Fax	(410) 799-0436	Email	
Maximum Occupants	100	☑ Manned	☐ Unmanned

Owner/Operator Details

Name	CONCRETE PIPE & PRECAST LLC		
Address	11115 JOHNSON ROAD ASHLAND VA 23005 United States		
Phone	(804) 798 6088	Email	jblankenship@concretepandp.com

Parent Company Details

Name			
Address			
Phone		Email	
Dun and Bradstreet No			

SIC Code	3272	Dun & Bradstreet	
NAICS	327332	TRIFID	

Subject to Emergency Planning under Section 302 of EPCRA (40 CFR part 355)? ☐ Yes ☑ No

Subject to Chemical Accident Prevention under Section 112(r) of CAA (40 CFR part 68 Risk Management Program) RMP Facility ID ☐ Yes ☑ No

Subject to Toxic Release Inventory under Section 313 of EPCRA (40 CFR part 372)? TRI Facility ID ☐ Yes ☑ No

Facility Emergency Coordinator

Name	Todd Epperly	Title	Plant Manager
Phone	(410) 799 2600	24 Hr Phone	(443) 994 6828
Email	tepperly@concretepandp.com		

Mailing Address if different from Facility ID Address

Company	CONCRETE PIPE & PRECAST LLC	Attn	
Street Address 1	PO BOX 71	Street Address 2	
City	JESSUP	State	MD
Zip	20794	Phone	(412) 601 2379
Country	United States		

Tier II Information Contact

Name	John Blankenship	Title	Pipe Specialist
Phone	(804) 393 8857	24 Hr Phone	(804) 393-8857
Email	jblankenship@concretepandp.com		

Emergency Contacts

St No	Name	Title	Phone	24 Hr Phone	Email
1	TODD EPPERLY	PLANT MANAGER	(410) 799-2600	(443) 994 6828	tepperly@concretepandp.com

Mixture Components reported in the Appendix

Certification I certify under penalty of law that I have personally examined and am familiar with the information submitted and that based on my inquiry of those individuals responsible for obtaining the information I believe that the submitted information is true accurate and complete

John BlankenshipPipe Specialist — January 24 2014

Name and official title of owner/operator or authorized representative — Date — Signature

Optional Attachments
- ☐ Site Plan
- ☐ Site Coordinate Abbreviations
- ☐ Other Safeguard measures
- ☐ Emergency Response Plan

Chemical Description		Physical & Health Hazard		Inventory		Storage Codes & Location						
Chemical ID	28786	☐	Fire	16400	Max Daily Amt(lbs)	Container Type	Pressure	Temperature	Storage Location	Description	Lat/Long	Max Amt At Location(lbs)
Chemical Information was changed since last Submission	☑	☐	Pressure	08	Max Daily Amount Code	[A] ABOVE GROUND TANK	[1] AMBIENT PRESSURE	[4] AMBIENT TEMPERATURE	AST AT PLANT BLD		0/0	
CAS	N/A	☐	Reactivity	8200	Ave Daily Amount (lbs)							
Trade Secret	☐	☐	Immediate (Acute)	05	Ave Daily Amount Code							
Chemical Name	**ADMIXTURES**	☑	Delayed (Chronic)	365	No of days on site							
EHS ☐	Contains EHS ☐											
EHS Name												
☐ Pure ☑ Mix ☐ Solid ☑ Liquid ☐ Gas												
☐ Chemical reported voluntarily and is not present in reportable quantities or exempt from reporting for Section 311( ) (MSDS/Chemical List) Section 312 (annual Tier Two Reporting) and the OSHA Hazard Communications Act regulations												

Chemical Description		Physical & Health Hazards		Inventory		Storage Codes & Location						
Chemical ID	16932	☐	Fire	8000000	Max Daily Amt(lbs)	Container Type	Pressure	Temperature	Storage Loc ID	Description	Lat/Long	Max Amt At Location(lbs)
Chemical Information was changed since the Last Submission	☑	☐	Pressure	12	Max Daily Amount Code	[H] OTHER Desc	[1] AMBIENT PRESSURE	[4] AMBIENT TEMPERATURE	HOPPERS OUTSIDE MANUFACTURING BUILDING		0/0	
CAS	N/A	☐	Reactivity	4000000	Ave Daily Amount (lbs)							
Trade Secret	☐	☐	Immediate (Acute)	12	Ave Daily Amount Code							
Chemical Name	**AGGREGATES**	☑	Delayed (Chronic)	365	No of days on site							
EHS ☐	Contains EHS ☐											
EHS Name												
☐ Pure ☑ Mix ☑ Solid ☐ Liquid ☐ Gas												
☐ Chemical is reported voluntarily and is not present in reportable quantities or exempt from reporting for Section 311(e) (MSDS/Chemical List) Section 312 (annual Tier Two Reporting) and the OSHA Hazard Communications Act regulations												

Chemical Description		Physical & Health Hazards		Inventory		Storage Codes & Location						
Chemical ID	11383	☐	Fire	360000	Max Daily Amt(lbs)	Container Type	Pressure	Temperature	Storage Location	Description	Lat/Long	Max Amt At Location(lbs)
Chemical Information was changed since the Last Submission	☑	☐	Pressure	10	Max Daily Amount Code	[H] SOLID	[1] AMBIENT PRESSURE	[4] AMBIENT TEMPERATURE	SILOS OUTSIDE MANUFACTURING BUILDING		0/0	
CAS	N/A	☐	Reactivity	180000	Ave Daily Amount (lbs)							
Trade Secret	☐	☐	Immediate (Acute)	10	Ave Daily Amount Code							
Chemical Name	**CEMENT**	☑	Delayed (Chronic)	365	No of days on site							
EHS ☐	Contains EHS ☐											
EHS Name												
☐ Pure ☑ Mix ☑ Solid ☐ Liquid ☐ Gas												
☐ Chemical is reported voluntarily and is not present in reportable quantities or exempt from reporting for Section 311( ) (MSDS/Chemical List) Section 312 (annual Tier Two Reporting) and the OSHA Hazard Communications Act regulations												

Chemical Description

Chemical ID: 11380
Chemical Information was changed since the Last Submission: ☑
CAS: N/A
Trade Secret: ☐
Chemical Name: DIESEL
EHS: ☐ Contains EHS: ☐
EHS Name:
☐ Pure ☑ Mix ☐ Solid ☑ Liquid ☐ Gas
☐ Chemical is reported voluntarily and is not present in reportable quantities or is exempt from reporting for Section 311( ) (MSDS/Chemical List) Section 312 (annual Tier Two Reporting) and the OSHA Hazard Communications Act regulations

Physical & Health Hazards

☑ Fire	13400	Max Daily Amt(lbs)
☐ Pressure	08	Max Daily Amount Code
☐ Reactivity	6700	Ave Daily Amount (lbs)
☐ Immediate (Acute)	05	Ave Daily Amount Code
☑ Delayed (Chronic)	365	No of days on site

Storage Code & Location

Container Type	Pressure	Temperature	Storage Location	Description	Long	Max Amt At Location(lbs)
[A] ABOVE GROUND TANK	[1] AMBIENT PRESSURE	[4] AMBIENT TEMPERATURE	AST TANK BY MAINTENANCE SHOP		0/0	

Chemical Description

Chemical ID: 11392
Chemical Information was changed since the Last Submission: ☑
CAS: N/A
Trade Secret: ☐
Chemical Name: FLY ASH
EHS: ☐ Contains EHS: ☐
EHS Name:
☐ Pure ☑ Mix ☑ Solid ☐ Liquid ☐ Gas
☐ Chemical reported voluntarily and is not present in portable quantities or exempt from reporting for Section 311(e) (MSDS/Chemical List) Section 312 (annual Tier Two Reporting) and the OSHA Hazard Communications Act regulations

Physical & Health Hazards

☐ Fire	200000	Max Daily Amt(lbs)
☐ Pressure	10	Max Daily Amount Code
☐ Reactivity	100000	Ave Daily Amount (lbs)
☐ Immediate (Acute)	10	Ave Daily Amount Code
☑ Delayed (Chronic)	365	No of days on site

Storage Code & Location

Container Type	Pressure	Temperature	Storage Location	Description	Long	Max Amt At Location(lbs)
[H] SILO	[1] AMBIENT PRESSURE	[4] AMBIENT TEMPERATURE	SILO OUTSIDE MANUFACTURING BUILDING		0/0	

Chemical Description

Chemical ID: 28785
Chemical Information was changed since the Last Submission: ☑
CAS: N/A
Trade Secret: ☐
Chemical Name: OILS
EHS: ☐ Contains EHS: ☐
EHS Name:
☐ Pure ☑ Mix ☐ Solid ☑ Liquid ☐ Gas
☐ Chemical is reported voluntarily and is not present in reportable quantities or exempt from reporting for Section 311(e) (MSDS/Chemical List) Section 312 (annual Tier Two Reporting) and the OSHA Hazard Communications Act regulations

Physical & Health Hazards

☑ Fire	19300	Max Daily Amt(lbs)
☐ Pressure	08	Max Daily Amount Code
☐ Reactivity	9000	Ave Daily Amount (lbs)
☐ Immediate (Acute)	05	Ave Daily Amount Code
☑ Delayed (Chronic)	365	No of days on site

Storage Code & Location

Container Type	Pressure	Temperature	Storage Location	Description	Long	Max Amt At Location(lbs)
[A] ABOVE GROUND TANK	[1] AMBIENT PRESSURE	[4] AMBIENT TEMPERATURE	AST AT MAINT BLD AND PLANT BLD		0/0	

CP&P
CONCRETE PIPE & PRECAST LLC

February 13 2015

Abraham Reich
U S Environmental Protection Agency- Region III
Land & Chemicals Management Division
Toxics Programs Branch (3LC61)
1650 Arch Street
Philadelphia PA 19103-2029

Reference 2015 Letter for Request of Information

Dear Reich

Attached to this letter are the supporting documents that you have requested in a letter dated 1/29/15 We appreciate you taking time answer our questions over the phone on this matter on 2/6/15

To our understanding the request letter was in response to a compliance issue with Section 313 of EPCRA where we did not send in the required forms for the calendar year 2013 As stated in an earlier email to you on 2/6/15 the required annual forms were filled out but were not submitted This being an oversight on our part and has since been corrected by completing the forms on line Documentation supporting this action is also attached

If you have any questions or comments on any of the attached responses please feel free to contact me at the phone number listed below or by email

Sincerely

Ed Eagle
CP&P Health & Safety Director

Enclosures (22)

11352 VIRGINIA PRECAST ROAD ASHLAND VA 11352
PHONE 540 470 0581 EMAIL EEAGLE@CONCRETEPANDP COM

CP&P
CONCRETE PIPE & PRECAST LLC

February 13 2015

Abraham Reich
U S Environmental Protection Agency Region III
Land & Chemicals Management Division
Toxics Programs Branch (3LC61)
1650 Arch Street
Philadelphia PA 19103-2029

Reference Responses to EPA Letter 1/29/14

Dear Mr Reich
Below are the responses to the 9 questions of your letter

1 The facilities primary SIC and NAICS codes
   a *SIC code is 3272 NAICS code 327332*
2 Facilities Total Corporate Sales for 2103 *We are a private company and our total yearly sales data is not open to the general public We do not see where this information is relevant or applicable to the current issue*
3 The number of employee employees at the facility
   a *2011=45 2012=45 2013=40*
4 A list of all chemicals and amounts subject to the EPCRA Section 313 manufactured process or used at the facility during the 2013 year
   a *This information was listed on the Emergency & Hazardous Chemical Inventory form for 2013*
   b *Those chemicals are as follows*
      i *Concrete admixtures Sika (3)*
      ii *Release Agent*
      iii *Diesel Fuel (#2 Fuel Oil)*
      iv *Fly Ash*
      v *Cement*
      vi *Aggregates (Limestone and Sand)*
      vii *Oils*
      viii *Finished Product*
5 Throughput data of all raw material and mixtures containing chemicals subject to EPCRA Section 313 for year 2013
   a *There area 4 sheets attached that show the requested data one of which is the 2013 Tier II report*
6 Material Safety Data sheets of all raw materials and mixtures containing chemicals subject to EPCRA Section 313 for year 2013
   a *SDS sheets for those materials and chemicals used are attached*
7 A brief description of the facility s background and operations
   a *The facility started producing concrete pipe in 1952 under different ownership Since that time there have been updates additions and property owner changes Concrete Pipe and Precast acquired the facility*

in 8/2012 from Hanson building products The facility produces precast concrete pipe and box culvert structures in a variety of sizes The production of concrete at this facility uses dry cast concrete batch design that is placed in forms fortified with steel reinforced wire, vibrated to compact and form the pipe and then is placed in a curtained steam kiln to cure The forms are reused until the production day is complete

8 A facility map and plot plan
   a *Attached is a current survey map for the facility that includes boundary lines structures etc*
9 A brief summary and flow diagram of the facility processes
   a *General Process flow summary and diagram is attached*

I certify that I am fully authorized by Concrete Pipe and Precast LLC to provide the above information on its behalf to the U S Environmental Agency regarding the upcoming inspection I certify under penalty of law that this response and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted Based on my inquiry of the person or persons who manage the system or those persons directly responsible for gathering the information the information submitted is to the best of my knowledge and belief true accurate and complete I am aware that there are significant penalties for submitting false information including the possibility of fines and imprisonment for knowing violations

Under my Signature

William J Tichacek Jr
President and CEO- Concrete Pipe and Precast LLC

11352 VIRGINIA PRECAST ROAD ASHLAND VA 23005
PHONE 804 798 6068 EMAIL EEAGLE@CONCRETEPANDP COM

Safety Data Sheet

CP&P
CONCRETE PIPE & PRECAST LLC

Product Name Concrete Structural Units

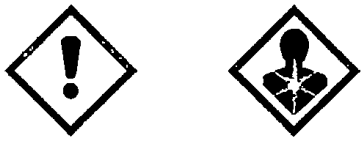
SECTION 1 COMPANY AND PRODUCT IDENTIFICATION

PRODUCT NAME	
Concrete Structural Units	Revised 31 December 2014
SYNONYMS	
Manholes box culverts curb inlets inverts etc	
Manufacturer	*Emergency Phone Number*
Concrete Pipe and Precast, LLC	**1-804 798 6068**

SECTION 2 HAZARDS IDENTIFICATION

HAZCOM GHS CLASSIFICATION

GHS SYMBOLS



SIGNAL WORD WARNING!

HAZARD STATEMENT

Concrete structure itself is not hazardous
Odorless gray solid or hollow concrete objects of various shapes
Non flammable product
Exposure to dust may cause respiratory irritation
Repeated or prolonged exposure to dust can damage lungs if inhaled
Exposure to crystalline silica dust can cause Silicosis a form of lung cancer
Exposure to dust may cause irritation to skin or contact dermatitis
Exposure to dust can cause irritation to eyes

PREVENTION STATEMENT

Do not eat drink or use tobacco when using this product
Do not chip grind or break product to create dust
Do not breathe dust created
Wear respiratory protection protective gloves and eye/face protection if large amounts of dust are created
Wash exposed skin thoroughly until dust is removed
Flush eyes for 15 minutes It irritation persists seek medical attention

RESPONSE

If concerns or exposure occurs seek medical attention

STORAGE

Prevent rolling falling or tip over

DISPOSAL

Dispose of structure or parts thereof in accordance with state and local regulations

SECTION 3 COMPOSITION & INFORMATION ON INGREDIENTS

OSHA / MSHA REGULATORY STATUS

Safety Data heet

CP&P
CONCRETE PIPE & PRECAST LLC

Product Name Concrete Structural Units

Concrete structural units are not considered hazardous as shipped Dust generated from crushing cutting grinding or drilling hardened concrete may contain amounts of crystalline silica considered hazardous under the OSHA and MSHA Hazard Communication Standards

Concrete is a mixture is gravel or rock sand Portland cement and water It may also contain fly ash slag silica fume fibers (organic) and color pigment

HAZARDOUS COMPONENTS	*Percent (By Weight)*	*CAS Number*	*OSHA PEL TWA (mg/m3)*	*ACGIH TLV TWA (mg/m3)*	*MSHA PEL TWA (mg/m3)*
Crystalline Silica	<1%	14808 60 7	(10)/(/ SiO2 + 2)(R) (30)/(%SiO2 + 2)(T)	025 (R)	(10)/(% SiO2 + 2)(R)
Portland Cement	5 10	65997 15 1	(5) (R) (15) (T)	1 (R)	(10)
Calcium Hydroxide	15 25	1305 62 0	(5) (R) (15) (T)	5 (T)	(5)

Notes 1 Concrete contains No Asbestos

2 (T)= Total Particulate

3 (R)= Respirable Particulate

SECTION 4 FIRST AID MEASURES

INHALATION

Move exposed individual to fresh air Dust in throat and nasal passages should clear naturally by coughing sneezing and nasal discharge Obtain medical attention if symptoms persist or develop later

EYE CONTACT

Do not allow individual to rub eyes Flush gently under running water for 15 minutes or longer making sure that the eyelids are held open Other than washing with water do not attempt to remove material from eyes If pain or irritation persist or develop later obtain medical attention

SKIN CONTACT

If irritation occurs flush gently with water until dust is removed If irritation persists or develops later obtain medical attention

Dermatitis Concrete dust in association with sweat and friction can lead to skin irritation and dermatitis Skin affected by dermatitis may include symptoms such as redness itching rash scaling and cracking Irritant dermatitis is caused by the physical properties of concrete dust such as abrasion

INGESTION

Ingestion is not a common route of occupational exposure for this product

SECTION 5 FIRE FIGHTING MEASURES

FLASH POINT	*FLAMMABLE LIMITS*
Not combustible	Not applicable

EXTINGUISHING AGENTS

Safety Data Sheet

CP&P
CONCRETE PIPE & PRECAST LLC

Product Name Concrete Structural Units

Not combustible Use extinguishing agent appropriate for surrounding flammable materials

UNUSUAL FIRE AND EXPLOSION HAZARDS

Spalling of hardened concrete may occur under conditions of intense heat

SECTION 6 ACCIDENTAL RELEASE MEASURES

PERSONAL PRECAUTIONS

If large amounts of dust have been generated eye protection and appropriate respiratory protection should be used to protect cleanup personnel against dust

SPILL AND LEAK PROCEDURES

Do not dry sweep broken dusty material Use water spray to minimize dust or vacuum with HEPA filters

SECTION 7 HANDLING AND STORAGE

HANDLING PRECAUTIONS

General Concrete products are heavy and pose risks such as sprains and strains to the back arms shoulders and legs during maneuvering Handle with care and use appropriate control measures Use appropriately rated equipment (such as cranes) and rigging when moving and placing concrete products

Housekeeping Dust containing crystalline silica may be generated during cutting grinding or crushing Activities which generate dust should take place in well ventilated areas Use good housekeeping methods to prevent the accumulation of dust in the workplace Wear appropriate PPE when dust is present

RECOMMENDED STORAGE CONDITIONS

Store concrete products in a secure manner to prevent falling or rolling Ensure adequate load bearing capacity of ground floor or other areas when placing or storing concrete products

SECTION 8 EXPOSURE CONTROLS, PRESONAL PROTECTION

ENGINEERING CONTROLS

When crushing cutting grinding or drilling concrete use general ventilation local exhaust and/or wet suppression methods to maintain exposures below allowable exposure limits

RESPIRATORY PROTECTION

The need for respiratory protection should be evaluated by a qualified professional The use of respirators for controlling exposures in excess of PEL must comply with OSHA and MSHA requirements for medical surveillance respirator fit testing repair and cleaning and user training

EYE PROTECTION

ANSI rated Safety glasses with side shields should be worn as minimum protection Dust

goggles or full face protection should be worn when conditions with high dust concentrations exist or are anticipated
FOOT PROTECTION
ANSI rated safety toed boots when handling or working around concrete products
SKIN PROTECTION
Use gloves to provide hand protection from abrasion In very dusty conditions clothing with long sleeves will provide skin protection Contaminated work clothing should be washed after use
ADDITIONAL PROTECTIVE MEASURES
Air monitoring for respirable dust containing quartz should be conducted regularly Airborne dust levels in excess of appropriate exposure limits should be reduced by all feasible engineering controls including (but not limited to) wet suppression ventilation process enclosure and enclosed employee work stations

SECTION 9 PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE Solid or hollow concrete objects of various shapes	***SPECIFIC GRAVITY*** Unknown
COLOR Gray	***EVAPORA TION RA TE*** Not applicable
ODOR None	***VAPOR DENSITY (AIR = 1)*** Not applicable
BOILING POINT Not applicable	***pH*** Not applicable
VAPOR PRESSURE Not applicable	***SOLUBILITY IN WATER*** Negligible

SECTION 10 STABILITY AND REACTIVITY

STABILITY
Stable
INCOMPATIBILITY
Strong acids may etch concrete
HAZARDOUS DECOMPOSITION PRODUCTS
None
HAZA RDOUS POLYMERIZATION
Does not polymerize
CONDITIONS TO AVOID
Avoid contact with strong acids

SECTION 11 TOXICOLOGICAL INFORMATION

Safety Data heet

CP&P
CONCRETE PIPE & PRECAST LLC

Product Name Concrete Structural Units

ACUTE TOXICITY DATA

Standard animal toxicity data (e g LD_{50} LC_{50}) are not available for quartz Epidemiologic studies of workers indicate an increased risk of lung cancer from chronic exposure to respirable crystalline silica this effect was more pronounced in those with silicosis However many of the studies did not account for effects of smoking or other confounding exposures

Epidemiologic studies have linked crystalline silica exposure with autoimmune diseases and kidney disorders Individuals with silicosis show a higher incidence of scleroderma a thickening of the skin Current data have not shown a definite causal effect between these effects and exposure to respirable crystalline silica

In laboratory animal tests dust containing newly broken particles of respirable silica particles caused greater lung injury than equal exposures to particles aged for sixty days or more

SECTION 12 ECOLOGICAL INFORMATION

ECOLOGICAL DATA

Generally considered chemically inert in the environment

SECTION 13 DISPOSAL CONSIDERATIONS

WASTE DISPOSAL

Dispose of waste product and unused product in compliance with federal state and local requirements Used material which has become contaminated may have significantly different characteristics based on the contaminant and should be evaluated accordingly

SECTION 14 TRANSPORT INFORMATION

DOT HAZARD CLASS

None

DOT PLACARD

None

SECTION 15 REGULATORY INFORMATION

US FEDERAL REGULATIONS

OSHA/ MSHA HAZARD COMMUNICATION

This product is considered by OSHA/ MSHA to be a hazardous chemical and should be included in the employer's hazard communication program

SARA 313

Not applicable

CERCLA 103

Not applicable

Safety Data Sheet

CP&P
CONCRETE PIPE & PRECAST LLC

Product Name Concrete Structural Units

RCRA HAZARDOUS WASTE	
Waste is not hazardous according to 40 CFR 261	
California Proposition 65	
Crystalline silica (airborne particles of respirable size) is a substance known y the State of California to cause cancer	
STATE REGULATIONS	
COMPONENT	*STATE REGULATORY LISTS*
Crystalline Silica quartz 14808 60 7	CA FL MA MN NJ PA

SECTION 16 OTHER INFORMATION

This MSDS (SDS) Sections 1-16 was updated on December 31 2014

NOTICE Concrete Pipe and Precast LLC believes that the information contained in this Material Safety Data Sheet is accurate The suggested procedures are based on experience as of date of publication They are not necessarily all inclusive or fully adequate in every circumstance Also the suggestions should not be confused with nor followed in violation of applicable laws regulations rules or insurance requirements

NO WARRANTY IS MADE EXPRESSED OR IMPLIED OR MERCHANTABILITY FITNESS FOR A PARTICULAR PURPOSE OR OTHERWISE

Safety Data Sheet

CP&P
CONCRETE PIPE & PRECAST LLC

Product Name Concrete Structural Units

SECTION 1 COMPANY AND PRODUCT IDENTIFICATION

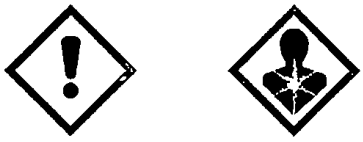
PRODUCT NAME	
Concrete Pipe	Revised 31 December 2014
SYNONYMS	
Concrete pipe box culverts	

Manufacturer	*Emergency Phone Number*
Concrete Pipe and Precast, LLC	**1 804 798 6068**

SECTION 2 HAZARDS IDENTIFICATION

HAZCOM GHS CLASSIFICATION

GHS SYMBOLS



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Flush eyes for 15 minutes It irritation persists seek medical attention

RESPONSE

If concerns or exposure occurs seek medical attention

STORAGE

Prevent rolling, falling or tip over

DISPOSAL

Dispose of structure or parts thereof in accordance with state and local regulations

SECTION 3 COMPOSITION & INFORMATION ON INGREDIENTS

OSHA / MSHA REGULATORY STATUS

Concrete structural units are not considered hazardous as shipped Dust generated from crushing

cutting grinding or drilling hardened concrete may contain amounts of crystalline silica considered hazardous under the OSHA and MSHA Hazard Communication Standards

Concrete is a mixture is gravel or rock sand Portland cement and water It may also contain fly ash slag silica fume fibers (organic) and color pigment

HAZARDOUS COMPONENTS	*Percent (By Weight)*	*CAS Number*	*OSHA PEL TWA (mg/m3)*	*ACGIH TLV TWA (mg/m3)*	*MSHA PEL TWA (mg/m3)*
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Portland Cement	5 10	65997 15 1	(5) (R) (15) (T)	1 (R)	(10)
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Notes 1 Concrete contains No Asbestos

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INGESTION

Ingestion is not a common route of occupational exposure for this product

SECTION 5 FIRE FIGHTING MEASURES

FLASH POINT	*FLAMMABLE LIMITS*
Not combustible	Not applicable

EXTINGUISHING AGENTS

Not combustible Use extinguishing agent appropriate for surrounding flammable materials

Safety Data Sheet

CP&P
CONCRETE PIPE & PRECAST LLC

Product Name Concrete Structural Units

UNUSUAL FIRE AND EXPLOSION HAZARDS

Spalling of hardened concrete may occur under conditions of intense heat

SECTION 6 ACCIDENTAL RELEASE MEASURES

PERSONAL PRECAUTIONS

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SPILL AND LEAK PROCEDURES

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HANDLING PRECAUTIONS

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ENGINEERING CONTROLS

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RESPIRATORY PROTECTION

The need for respiratory protection should be evaluated by a qualified professional The use of respirators for controlling exposures in excess of PEL must comply with OSHA and MSHA requirements for medical surveillance respirator fit testing repair and cleaning and user training

EYE PROTECTION

ANSI rated Safety glasses with side shields should be worn as minimum protection Dust goggles or full face protection should be worn when conditions with high dust concentrations exist or are anticipated

FOOT PROTECTION
ANSI rated safety toed boots when handling or working around concrete products
SKIN PROTECTION
Use gloves to provide hand protection from abrasion In very dusty conditions clothing with long sleeves will provide skin protection Contaminated work clothing should be washed after use
ADDITIONAL PROTECTIVE MEASURES
Air monitoring for respirable dust containing quartz should be conducted regularly Airborne dust levels in excess of appropriate exposure limits should be reduced by all feasible engineering controls including (but not limited to) wet suppression ventilation process enclosure and enclosed employee work stations

SECTION 9 PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE	*SPECIFIC GRAVITY*
Solid or hollow concrete objects of various shapes	Unknown
COLOR	*EVAPORA TION RA TE*
Gray	Not applicable
ODOR	*VAPOR DENSITY (AIR = 1)*
None	Not applicable
BOILING POINT	*pH*
Not applicable	Not applicable
VAPOR PRESSURE	*SOLUBILITY IN WATER*
Not applicable	Negligible

SECTION 10 STABILITY AND REACTIVITY

STABILITY
Stable
INCOMPATIBILITY
Strong acids may etch concrete
HAZARDOUS DECOMPOSITION PRODUCTS
None
HAZA RDOUS POLYMERIZATION
Does not polymerize
CONDITIONS TO AVOID
Avoid contact with strong acids

SECTION 11 TOXICOLOGICAL INFORMATION

ACUTE TOXICITY DATA

Standard animal toxicity data (e g LD_{50} LC_{50}) are not available for quartz Epidemiologic studies of workers indicate an increased risk of lung cancer from chronic exposure to respirable crystalline silica this effect was more pronounced in those with silicosis However many of the studies did not account for effects of smoking or other confounding exposures

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In laboratory animal tests dust containing newly broken particles of respirable silica particles caused greater lung injury than equal exposures to particles aged for sixty days or more

SECTION 12 ECOLOGICAL INFORMATION

ECOLOGICAL DATA

Generally considered chemically inert in the environment

SECTION 13 DISPOSAL CONSIDERATIONS

WASTE DISPOSAL

Dispose of waste product and unused product in compliance with federal state and local requirements Used material which has become contaminated may have significantly different characteristics based on the contaminant and should be evaluated accordingly

SECTION 14 TRANSPORT INFORMATION

DOT HAZARD CLASS

None

DOT PLACARD

None

SECTION 15 REGULATORY INFORMATION

US FEDERAL REGULATIONS

OSHA/ MSHA HAZARD COMMUNICATION

This product is considered by OSHA/ MSHA to be a hazardous chemical and should be included in the employer's hazard communication program

SARA 313

Not applicable

CERCLA 103

Not applicable

RCRA HAZARDOUS WASTE

Safety Data Sheet

CP&P
CONCRETE PIPE & PRECAST LLC

Product Name Concrete Structural Units

Waste is not hazardous according to 40 CFR 261	
California Proposition 65	
Crystalline silica (airborne particles of respirable size) is a substance known y the State of California to cause cancer	
STATE REGULATIONS	
COMPONENT	*STATE REGULATORY LISTS*
Crystalline Silica quartz 14808 60 7	CA FL MA MN NJ PA

SECTION 16 OTHER INFORMATION

This MSDS (SDS) Sections 1 16 was updated on December 31 2014

NOTICE Concrete Pipe and Precast LLC believes that the information contained in this Material Safety Data Sheet is accurate The suggested procedures are based on experience as of date of publication They are not necessarily all inclusive or fully adequate in every circumstance Also the suggestions should not be confused with nor followed in violation of applicable laws regulations rules or insurance requirements

NO WARRANTY IS MADE EXPRESSED OR IMPLIED OR MERCHANTABILITY FITNESS FOR A PARTICULAR PURPOSE OR OTHERWISE

Material Safety Data Sheet

1 Product and company identification

Product name	Tractor Hydraulic Fluid
MSDS #	464026
Code	464026 CA01
Product use	Hydraulic fluid For specific application advice see appropriate Technical Data Sheet or consult our company representative
Manufacturer	Castrol Industrial North America Inc 150 W Warrenville Road Naperville IL 60563
Supplier	Castrol Industrial North America Inc 150 W Warrenville Road Naperville IL 60563 Product Information +1-877 641 1600
EMERGENCY SPILL INFORMATION	1 (800) 424 9300 CHEMTREC (USA)

2 Hazards identification

Physical state	Liquid
Color	Brown
Emergency overview	CAUTION ! MAY CAUSE RESPIRATORY TRACT EYE AND SKIN IRRITATION Prolonged or repeated contact can defat the skin and lead to irritation and/or dermatitis In accordance with good industrial hygiene and safety work practices airborne exposures should be controlled to the lowest extent practicable Avoid contact with eyes skin and clothing Use only with adequate ventilation Keep container tightly closed and sealed until ready for use Wash thoroughly after handling
Routes of entry	Dermal contact Eye contact Inhalation Ingestion
Potential health effects	
Eyes	May cause eye irritation
Skin	May cause skin irritation Prolonged or repeated contact can defat the skin and lead to irritation and/or dermatitis
Inhalation	May cause respiratory tract irritation
Ingestion	Ingestion may cause gastrointestinal irritation and diarrhea

See toxicological information (section 11)

3 Composition/information on ingredients

Ingredient name	CAS #	/
Base oil highly refined	Varies	90 95
Zinc alkyl dithiophosphate	68649-42 3	1 5

4 First aid measures

Eye contact	In case of contact immediately flush eyes with plenty of water for at least 15 minutes Get medical attention if symptoms occur
Skin contact	Immediately wash exposed skin with soap and water Remove contaminated clothing and shoes Wash clothing before reuse Clean shoes thoroughly before reuse Get medical attention if symptoms occur
Inhalation	If inhaled remove to fresh air Get medical attention if symptoms occur
Ingestion	Do not induce vomiting unless directed to do so by medical personnel Never give anything by mouth to an unconscious person If potentially dangerous quantities of this material have been swallowed call a physician immediately Get medical attention if symptoms occur
Notes to physician	Treatment should in general be symptomatic and directed to relieving any effects Note High Pressure Applications Injections through the skin resulting from contact with the product at high pressure constitute a major medical emergency Injuries may not appear serious at first but within a few hours tissue becomes swollen discolored and extremely painful with extensive subcutaneous necrosis Surgical exploration should be undertaken without delay Thorough and extensive debridement of the wound and underlying tissue is necessary to minimize tissue loss and prevent or limit permanent damage Note that high pressure may force the product considerable distances along tissue planes

5 Fire-fighting measures

Flash point	Closed cup 220 C (428 F) [Pensky Martens]
Fire/explosion hazards	In a fire or if heated a pressure increase will occur and the container may burst
Extinguishing media	
Suitable	Use an extinguishing agent suitable for the surrounding fire
Not suitable	Do not use water jet
Fire fighting procedures	Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire No action shall be taken involving any personal risk or without suitable training
Hazardous combustion products	Combustion products may include the following phosphorus oxides metal oxide/oxides carbon oxides (CO CO_2) (carbon monoxide carbon dioxide) sulfur oxides (SO_2 SO_3 etc)
Protective clothing (fire)	Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face piece operated in positive pressure mode

6 Accidental release measures

Personal precautions	No action shall be taken involving any personal risk or without suitable training Keep unnecessary and unprotected personnel from entering Do not touch or walk through spilled material In accordance with good industrial hygiene and safety work practices airborne exposures should be controlled to the lowest extent practicable Provide adequate ventilation Wear appropriate respirator when ventilation is inadequate Put on appropriate personal protective equipment (see section 8)
Environmental precautions	Avoid dispersal of spilled material and runoff and contact with soil waterways drains and sewers Inform the relevant authorities if the product has caused environmental pollution (sewers waterways soil or air)
Methods for cleaning up	
Large spill	Stop leak if without risk Move containers from spill area Approach release from upwind Prevent entry into sewers water courses basements or confined areas Wash spillages into an effluent treatment plant or proceed as follows Contain and collect spillage with non-combustible absorbent material e g sand earth vermiculite or diatomaceous earth and place in container for disposal according to local regulations (see section 13) Dispose of via a licensed waste disposal contractor Contaminated absorbent material may pose the same hazard as the spilled product Note see section 1 for emergency contact information and section 13 for waste disposal

Small spill	Stop leak if ~~ut risk Move containers from spill area Dilute ** water and mop up if water soluble or al with an inert dry material and place in an appr waste disposal container Dispose of v o o censed waste disposal contractor

7 Handling and storage

Handling	Put on appropriate personal protective equipment (see section 8) Workers should wash hands and face before eating drinking and smoking Do not breathe vapor or mist Do not ingest Avoid contact with eyes skin and clothing Use only with adequate ventilation Wear appropriate respirator when ventilation is inadequate
Storage	Store in accordance with local regulations Store away from direct sunlight in a dry cool and well ventilated area away from incompatible materials (see section 10) Keep container tightly closed and sealed until ready for use Containers that have been opened must be carefully resealed and kept upright to prevent leakage Do not store in unlabeled containers Use appropriate containment to avoid environmental contamination
Other information	Sulfur compounds in this material may decompose when heated to release hydrogen sulfide gas which may accumulate to potentially lethal concentrations in enclosed air spaces Vapor concentrations of hydrogen sulfide above 50 ppm or prolonged exposure at lower concentrations may saturate human odor perceptions so that the smell of gas may not be apparent Exposure to concentrations of hydrogen sulfide vapor above 500 ppm may cause rapid death Do not rely on the sense of smell to detect hydrogen sulfide

8 Exposure controls/personal protection

Occupational exposure limits

Ingredient name	**Occupational exposure limits**
Base oil highly refined	**ACGIH (United States)** TWA 5 mg/m³ 8 hour(s) Form Mineral oil mist **OSHA (United States)** TWA 5 mg/m³ 8 hour(s) Form Mineral oil mist

While specific OELs for certain components may be shown in this section other components may be present in any mist vapor or dust produced Therefore the specific OELs may not be applicable to the product as a whole and are provided for guidance only

Some states may enforce more stringent exposure limits

Control Measures	Use only with adequate ventilation If user operations generate dust fumes gas vapor or mist use process enclosures local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits
Hygiene measures	Wash hands forearms and face thoroughly after handling chemical products before eating smoking and using the lavatory and at the end of the working period Appropriate techniques should be used to remove potentially contaminated clothing Wash contaminated clothing before reusing
Personal protection	
Eyes	Avoid contact with eyes Safety glasses with side shields or chemical goggles
Skin and body	Avoid contact with skin and clothing Wear suitable protective clothing
Respiratory	Use adequate ventilation In accordance with good industrial hygiene and safety work practices airborne exposures should be controlled to the lowest extent practicable
Hands	The correct choice of protective gloves depends upon the chemicals being handled the conditions of work and use and the condition of the gloves (even the best chemically resistant glove will break down after repeated chemical exposures) Most gloves provide only a short time of protection before they must be discarded and replaced Because specific work environments and material handling practices vary safety procedures should be developed for each intended application Gloves should therefore be chosen in consultation with the supplier/manufacturer and with a full assessment of the working conditions Consult your supervisor or Standard Operating Procedure (S O P) for special handling instructions

9 Physical and chemical pr[illegible]ties

Physical state	Liquid
Color	Brown
Flash point	Closed cup 220 C (428 F) [Pensky Martens]
Density	872 kg/m^3 (0 872 g/cm^3) at 15 C
Viscosity	Kinematic 55 6 mm^2/s (55 6 cSt) at 40 C Kinematic 9 3 mm^2/s (9 3 cSt) at 100 C
Solubility	insoluble in water

10 Stability and reactivity

Stability and reactivity	The product is stable
Possibility of hazardous reactions	Under normal conditions of storage and use hazardous reactions will not occur
Conditions to avoid	Avoid all possible sources of ignition (spark or flame)
Incompatibility with various substances	Reactive or incompatible with the following materials oxidizing materials
Hazardous decomposition products	This product may release hydrogen sulfide (H2S) if it is heated to high temperatures
Hazardous polymerization	Under normal conditions of storage and use hazardous polymerization will not occur

11 Toxicological information

Other Information	Contains low concentration of zinc alkyl dithiophosphate (ZDDP) Concentration is not expected to cause eye or skin irritation

Potential chronic health effects

Carcinogenicity	No known significant effects or critical hazards

12 Ecological information

Ecotoxicity

No testing has been performed by the manufacturer

13 Disposal considerations

Waste Information	The generation of waste should be avoided or minimized wherever possible Empty containers or liners may retain some product residues This material and its container must be disposed of in a safe way Dispose of surplus and non recyclable products via a licensed waste disposal contractor Disposal of this product solutions and any by products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements Avoid dispersal of spilled material and runoff and contact with soil waterways drains and sewers

NOTE The generator of waste has the responsibility for proper waste identification (based on characteristic(s) or listing) transportation and disposal

14 Transport information

Not classified as hazardous for transport (DOT TDG IMO/IMDG IATA/ICAO)

15 Regulatory information

U S Federal Regulations

United States Inventory (TSCA 8b) All components are listed or exempted

SARA 302/304/311/312 extremely hazardous substances No products were found
SARA 302/304 emergency planning and notification No products were found
SARA 302/304/311/312 hazardous chemicals No products were found
SARA 311/312 MSDS distribution chemical inventory hazard identification Tractor Hydraulic Fluid Immediate (acute) health hazard

SARA 313

	Product name	CAS number	Concentration
Form R Reporting requirements	Zinc alkyl dithiophosphate	68649-42 3	1 444
Supplier notification	Zinc alkyl dithiophosphate	68649-42-3	1 444

CERCLA Sections 102a/103 Hazardous Substances (40 CFR Part 302 4) CERCLA Hazardous substances Zinc alkyl dithiophosphate 1 lb (0 454 kg)

State regulations

Massachusetts Substances None of the components are listed

New Jersey Hazardous Substances The following components are listed ZINC compounds

Pennsylvania RTK Hazardous Substances The following components are listed ZINC COMPOUNDS

California Prop 65 **WARNING** This product contains a chemical known to the State of California to cause cancer white mineral oil

Inventories

Canada Inventory	All components are listed or exempted
Europe inventory	All components are listed or exempted
Australia Inventory (AICS)	All components are listed or exempted
China inventory (IECSC)	All components are listed or exempted
Japan Inventory (ENCS)	All components are listed or exempted
Korea inventory (KECI)	All components are listed or exempted
Philippines Inventory (PICCS)	All components are listed or exempted

16 Other information

Label requirements CAUTION !

MAY CAUSE RESPIRATORY TRACT EYE AND SKIN IRRITATION

HMIS® Rating	**Health**	1	**National Fire Protection Association (U S A)**	
	Flammabili	1		
	Physical Hazard	0		
	Personal protection	X		

History

Date of issue	12/16/2010
Date of previous issue	07/11/2007
Prepared by	Product Stewardship

Notice to reader

All reasonably practicable steps have been taken to ensure this data sheet and the health safety and environmental information contained in it is accurate as of the date specified below No warranty or representation express or implied is made as to the accuracy or completeness of the data and information in this data sheet

The data and advice given apply when the product is sold for the stated application or applications You should not use the product other than for the stated application or applications without seeking advice from us

It is the user s obligation to evaluate and use this product safely and to comply with all applicable laws and regulations The BP Group shall not be responsible for any damage or injury resulting from use other than the stated product use of the material from any failure to adhere to recommendations or from any hazards inherent in the nature of the material Purchasers of the product for supply to a third party for use at work have a duty to take all necessary steps to ensure that any person handling or using the product is provided with the information in this sheet Employers have a duty to tell employees and others who may be affected of any hazards described in this sheet and of any precautions that should be taken

AFETY DATA SHEET

SD0091 v2 1 RS 463 3610, 692 643 **RS REACh revision date 01/07/10**

1 Identification of the substance/preparation and company/undertaking

Product name Castrol Hyspin AWS 32

SDS no 456615

Use of the substance/preparation hydraulic oil
For specific application advice see appropriate Technical Data Sheet or consult our company representative

Supplier Castrol (U K.) Limited
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Swindon
Wiltshire SN3 1RE
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E mail address MSDSadvice@bp.com

2 Hazards identification

This preparation is not classified as dangerous according to Directive 1999/45/EC as amended and adapted

Additional hazards Note High Pressure Applications
Injections through the skin resulting from contact with the product at high pressure constitute a major medical emergency
See Medical Advice under First Aid Measures Section 4 of this Safety Data Sheet

See sections 11 and 12 for more detailed information on health effects and symptoms and environmental hazards

3 Composition/information on ingredients

Highly refined base oil (IP 346 DMSO extract < 3 /) Proprietary performance additives

This product does not contain any hazardous ingredients at or above regulated thresholds

4 First-aid measures

Eye contact In case of contact immediately flush eyes with plenty of water for at least 15 minutes Get medical attention if irritation occurs

Skin contact In case of contact immediately flush skin with plenty of water Remove contaminated clothing and shoes Wash clothing before reuse Clean shoes thoroughly before reuse Get medical attention if irritation develops

Inhalation If inhaled remove to fresh air Get medical attention if symptoms appear

Ingestion Do not induce vomiting unless directed to do so by medical personnel Never give anything by mouth to an unconscious person If potentially dangerous quantities of this material have been swallowed call a physician immediately

Notes to physician Treatment should in general be symptomatic and directed to relieving any effects

Note High Pressure Applications
Injections through the skin resulting from contact with the product at high pressure constitute a major medical emergency Injuries may not appear serious at first but within a few hours tissue becomes swollen discoloured and extremely painful with extensive subcutaneous necrosis
Surgical exploration should be undertaken without delay Thorough and extensive debridement of the wound and underlying tissue is necessary to minimise tissue loss and prevent or limit permanent damage
Note that high pressure may force the product considerable distances along tissue planes

5 Fire fighting measures

Extinguishing media

Suitable In case of fire use foam dry chemical or carbon dioxide extinguisher or spray

Not suitable Do not use water jet

Hazardous decomposition products Decomposition products may include the following materials
carbon dioxide
carbon monoxide

Unusual fire/explosion hazards None identified

Special fire-fighting procedures	None identified
Protection of fire fighters	Fire-fighters should wear positive pressure self-contained breathing apparatus (SCBA) and full turnout gear

6 Accidental release measures

Personal precautions	No action shall be taken involving any personal risk or without suitable training Evacuate surrounding areas Keep unnecessary and unprotected personnel from entering Do not touch or walk through spilt material Avoid breathing vapour or mist Provide adequate ventilation Wear appropriate respirator when ventilation is inadequate Put on appropriate personal protective equipment (see section 8)
Environmental precautions	Avoid dispersal of spilt material and runoff and contact with soil waterways drains and sewers Inform the relevant authorities if the product has caused environmental pollution (sewers waterways soil or air)
Large spill	Stop leak if without risk Move containers from spill area Approach the release from upwind Prevent entry into sewers water courses basements or confined areas Wash spillages into an effluent treatment plant or proceed as follows Contain and collect spillage with non-combustible absorbent material e g sand earth vermiculite or diatomaceous earth and place in container for disposal according to local regulations (see section 13) Dispose of via a licensed waste disposal contractor Contaminated absorbent material may pose the same hazard as the spilt product Note see section 1 for emergency contact information and section 13 for waste disposal
Small spill	Stop leak if without risk Move containers from spill area Absorb with an inert material and place in an appropriate waste disposal container Dispose of via a licensed waste disposal contractor

7 Handling and storage

Handling	Wash thoroughly after handling
Storage	Keep container tightly closed Keep container in a cool well ventilated area
Not suitable	Prolonged exposure to elevated temperature

8 Exposure controls/personal protection

Ingredient name	**Occupational exposure limits**
Base oil unspecified	**EH40 (United Kingdom (UK))** STEL 10 mg/m 15 minute(s) Form Oil mist, mineral TWA 5 mg/m 8 hour(s) Form Oil mist mineral

Whilst specific OELs for certain components may be shown in this section other components may be present in any mist vapour or dust produced Therefore the specific OELs may not be applicable to the product as a whole and are provided for guidance only

Exposure controls

Occupational exposure controls	Provide exhaust ventilation or other engineering controls to keep the airborne concentrations of vapours below their respective occupational exposure limits All chemicals should be assessed for their risks to health and appropriate control measures put in place to prevent or adequately control exposure A hierarchy of control measures exists (e g elimination substitution general ventilation containment systems of work changing the process or activity) that must be considered before use of personal protective equipment Personal protective equipment should conform to appropriate standards be suitable for use be kept in good condition and properly maintained Your supplier of personal protective equipment should be consulted for advice on selection and appropriate standards For further information contact your national organisation for standards The final choice of protective equipment will depend upon a risk assessment. It is important to ensure that all items of personal protective equipment are compatible
Hygiene measures	Wash hands forearms and face thoroughly after handling chemical products before eating smoking and using the lavatory and at the end of the working period

Personal protective equipment

Respiratory protection	Respiratory protective equipment is not normally required where there is adequate natural or local exhaust ventilation to control exposure In case of insufficient ventilation wear suitable respiratory equipment. Respiratory protective equipment must be checked to ensure it fits correctly each time it is worn Air filtering respirators also called air purifying respirators will not be adequate under conditions of oxygen deficiency (i e low oxygen concentration) and would not be considered suitable where airborne concentrations of chemicals with a significant hazard are present In these cases air supplied breathing apparatus will be required Provided an air filtering/air purifying respirator is suitable a filter for particulates can be used for mist or fume Use filter type P or comparable standard A combination filter for particles and organic gases and vapours (boiling point >65 C) may be required if vapour or abnormal odour is also present due to high product temperature Use filter type AP or comparable standard

Hand protection	Wear protective gloves if prolonged or repeated contact is likely Wear chemical resistant gloves
	Recom id nitrile gloves
	Protective gloves will deteriorate over time due to physical and chemical damage Inspect and replace gloves on a regular basis The frequency of replacement will depend upon the circumstances of use
Eye protection	Safety glasses with side shields
Skin and body	Use of protective clothing is good industrial practice
	Cotton or polyester/cotton overalls will only provide protection against light superficial contamination that will not soak through to the skin Overalls should be laundered on a regular basis When the risk of skin exposure is high (e g when cleaning up spillages or if there is a risk of splashing) then chemical resistant aprons and/or impervious chemical suits and boots will be required

9 Physical and chemical properties

General information

Appearance

Physical state	Liquid
Colour	Amber
Odour	Oily

Important health, safety and environmental information

Flash point	Closed cup 200 C (392 F) [Pensky-Martens]
Viscosity	Kinematic 32 mm /s (32 cSt) at 40 C Kinematic 5 26 mm^2/s (5 26 cSt) at 100 C
Density	876 kg/m^3 (0 876 g/cm^3) at 15 C
Solubility	insoluble in water
Partition coefficient (LogKow)	>1

10 Stability and reactivity

Stability	The product is stable Under normal conditions of storage and use hazardous polymerisation will not occur
Conditions to avoid	No specific data
Materials to avoid	Reactive or incompatible with the following materials oxidizing materials
Hazardous decomposition products	Combustion products may include the following carbon oxides
	Under normal conditions of storage and use hazardous decomposition products should not be produced

11 Toxicological information

Acute toxicity	Unlikely to cause more than transient stinging or redness if accidental eye contact occurs
	Unlikely to cause harm to the skin on brief or occasional contact but prolonged or repeated exposure may lead to dermatitis
	Unlikely to cause harm if accidentally swallowed in small doses though larger quantities may cause nausea and diarrhoea
	At normal ambient temperatures this product will be unlikely to present an inhalation hazard because of its low volatility May be harmful by inhalation if exposure to vapour mists or fumes resulting from thermal decomposition products occurs
Chronic toxicity	
Chronic effects	No known significant effects or critical hazards
Effects and symptoms	
Eyes	No significant health hazards identified
Skin	No significant health hazards identified
Inhalation	No significant health hazards identified
Ingestion	No significant health hazards identified

12 Ecological information

Persistence/degradability	Inherently biodegradable
Mobility	Spillages may penetrate the soil causing ground water contamination
Bioaccumulative potential	This product is not expected to bioaccumulate through food chains in the environment
Environmental hazards	Not classified as dangerous
Other ecological information	Spills may form a film on water surfaces causing physical damage to organisms Oxygen transfer could also be impaired

13 Disposal considerations

Disposal considerations / Waste information	The generation of waste should be avoided or minimised wherever possible. Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe way. Dispose of surplus and non recyclable products via a licensed waste disposal contractor. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers.
Unused product	
European waste catalogue (EWC)	13 01 10 mineral based non-chlorinated hydraulic oils However, deviation from the intended use and/or the presence of any potential contaminants may require an alternative waste disposal code to be assigned by the end user.

14 Transport information

Not classified as hazardous for transport (ADR/RID, ADNR, IMDG, ICAO/IATA)

15 Regulatory information

Classification and labelling have been performed according to EU directives 1999/45/EC and 67/548/EEC as amended and adapted.

Label requirements

Risk phrases	This product is not classified according to EU legislation.
Other regulations	
Inventories	**Europe Inventory**: All components are listed or exempted. **United States inventory (TSCA 8b)**: All components are listed or exempted. **Australia Inventory (AICS)**: All components are listed or exempted. **Canada Inventory**: All components are listed or exempted. **China Inventory (IECSC)**: All components are listed or exempted. **Japan Inventory (ENCS)**: All components are listed or exempted. **Korea Inventory (KECI)**: All components are listed or exempted. **Philippines Inventory (PICCS)**: All components are listed or exempted.

16 Other information

History	
Date of issue	11/01/2008
Date of previous issue	09/11/2007
Prepared by	Product Stewardship Group

Notice to reader

▽ Indicates information that has changed from previously issued version.

All reasonably practicable steps have been taken to ensure this data sheet and the health, safety and environmental information contained in it is accurate as of the date specified below. No warranty or representation, express or implied, is made as to the accuracy or completeness of the data and information in this data sheet.

The data and advice given apply when the product is sold for the stated application or applications. You should not use the product other than for the stated application or applications without seeking advice from us.

It is the user's obligation to evaluate and use this product safely and to comply with all applicable laws and regulations. The BP Group shall not be responsible for any damage or injury resulting from use, other than the stated product use of the material, from any failure to adhere to recommendations, or from any hazards inherent in the nature of the material. Purchasers of the product for supply to a third party for use at work, have a duty to take all necessary steps to ensure that any person handling or using the product is provided with the information in this sheet. Employers have a duty to tell employees and others who may be affected of any hazards described in this sheet and of any precautions that should be taken.

S/ .. ETY DATA SHEE

Section 1 Identification

Product name	Castrol GTX 10W 30
SDS #	459835
Code	459835 EC02

Relevant identified uses of the substance or mixture and uses advised against

Product use	Engine Oils For specific application advice see appropriate Technical Data Sheet or consult our company representative
Manufacturer	BP Lubricants USA Inc 1500 Valley Road Wayne NJ 07470 Telephone (973) 633 2200 Telecopier (973) 633 7475
EMERGENCY HEALTH INFORMATION	1 (800) 447-8735 Outside the US +1 703 527 3887 (CHEMTREC)
EMERGENCY SPILL INFORMATION	1 (800) 424 9300 CHEMTREC (USA)
OTHER PRODUCT INFORMATION	1 (866) 4 BP MSDS (866-427-6737 Toll Free North America) email bpcares@bp com

Section 2 Hazards identification

OSHA/HCS status	This material is not considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910 1200)
Classification of the substance or mixture	Not classified

GHS label elements

Signal word	No signal word
Hazard statements	No known significant effects or critical hazards
Precautionary statements	
General	Read label before use Keep out of reach of children If medical advice is needed have product container or label at hand
Prevention	Not applicable
Response	Not applicable
Storage	Not applicable
Disposal	Not applicable
Hazards not otherwise classified	Defatting to the skin USED ENGINE OILS Used engine oil may contain hazardous components which have the potential to cause skin cancer See Toxicological Information section 11 of this Safety Data Sheet

Section 3 Composition/information on ingredients

Highly refined base oil (IP 346 DMSO extract < 3%) Proprietary performance additives

Substance/mixture Mixture

Ingredient name	CAS number	%
Base oil highly refined	Varies	90 95
Distillates (petroleum) hydrotreated heavy paraffinic	64742 54 7	1 5

Any concentration shown as a range is to protect confidentiality or is due to batch variation

There are no additional ingredients present which within the current knowledge of the supplier and in the concentrations applicable are classified as hazardous to health or the environment and hence require reporting in this section

Occupational exposure limits if available are listed in Section 8

Section 4 First aid measures

Description of necessary first aid measures

Eye contact	In case of contact immediately flush eyes with plenty of water for at least 15 minutes Eyelids should be held away from the eyeball to ensure thorough rinsing Check for and remove any contact lenses Get medical attention
Skin contact	Wash skin thoroughly with soap and water or use recognized skin cleanser Remove contaminated clothing and shoes Wash clothing before reuse Clean shoes thoroughly before reuse Get medical attention if symptoms occur
Inhalation	If inhaled remove to fresh air Get medical attention if symptoms occur
Ingestion	Do not induce vomiting unless directed to do so by medical personnel Get medical attention if symptoms occur
Protection of first aiders	No action shall be taken involving any personal risk or without suitable training

Most important symptoms/effects, acute and delayed

See Section 11 for more detailed information on health effects and symptoms

Indication of immediate medical attention and special treatment needed, if necessary

Notes to physician	Treatment should in general be symptomatic and directed to relieving any effects
Specific treatments	No specific treatment

Section 5 Fire-fighting measures

Extinguishing media

Suitable extinguishing media	In case of fire use foam dry chemical or carbon dioxide extinguisher or spray
Unsuitable extinguishing media	Do not use water jet
Specific hazards arising from the chemical	In a fire or if heated a pressure increase will occur and the container may burst
Hazardous combustion products	Combustion products may include the following carbon dioxide carbon monoxide
Special protective actions for fire fighters	Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire No action shall be taken involving any personal risk or without suitable training
Special protective equipment for fire fighters	Fire fighters should wear positive pressure self contained breathing apparatus (SCBA) and full turnout gear

Section 6 Accidental r ase measures

Personal precautions, protective equipment and emergency procedures

For non-emergency personnel	No action shall be taken involving any personal risk or without suitable training Evacuate surrounding areas Keep unnecessary and unprotected personnel from entering Do not touch or walk through spilled material Put on appropriate personal protective equipment Floors may be slippery use care to avoid falling
For emergency responders	If specialised clothing is required to deal with the spillage take note of any information in Section 8 on suitable and unsuitable materials See also the information in For non emergency personnel
Environmental precautions	Avoid dispersal of spilled material and runoff and contact with soil waterways drains and sewers Inform the relevant authorities if the product has caused environmental pollution (sewers waterways soil or air)

Methods and materials for containment and cleaning up

Small spill	Stop leak if without risk Move containers from spill area Absorb with an inert material and place in an appropriate waste disposal container Dispose of via a licensed waste disposal contractor
Large spill	Stop leak if without risk Move containers from spill area Prevent entry into sewers water courses basements or confined areas Contain and collect spillage with non combustible absorbent material e g sand earth vermiculite or diatomaceous earth and place in container for disposal according to local regulations Dispose of via a licensed waste disposal contractor

Section 7 Handling and storage

Precautions for safe handling

Protective measures	Put on appropriate personal protective equipment (see Section 8)
Advice on general occupational hygiene	Eating drinking and smoking should be prohibited in areas where this material is handled stored and processed Wash thoroughly after handling Remove contaminated clothing and protective equipment before entering eating areas See also Section 8 for additional information on hygiene measures
Conditions for safe storage including any incompatibilities	Store in accordance with local regulations Store in original container protected from direct sunlight in a dry cool and well ventilated area away from incompatible materials (see Section 10) and food and drink Keep container tightly closed and sealed until ready for use Store and use only in equipment/containers designed for use with this product Containers that have been opened must be carefully resealed and kept upright to prevent leakage Do not store in unlabeled containers Use appropriate containment to avoid environmental contamination
Not suitable	Prolonged exposure to elevated temperature

Section 8 Exposure controls/personal protection

Control parameters

Occupational exposure limits

Ingredient name	Exposure limits
Base oil highly refined	**ACGIH TLV (United States)** TWA 5 mg/m³ 8 hours Issued/Revised 11/2009 Form Inhalable fraction **OSHA PEL (United States)** TWA 5 mg/m³ 8 hours Issued/Revised 6/1993
Distillates (petroleum) hydrotreated heavy paraffinic	**ACGIH TLV (United States)** TWA 5 mg/m³ 8 hours Issued/Revised 11/2009 Form Inhalable fraction **OSHA PEL (United States)** TWA 5 mg/m³ 8 hours Issued/Revised 6/1993

Section 8 Exposure cc ols/personal protection

While specific OELs for certain components may be shown in this section other components may be present in any mist vapor or dust produced Therefore the specific OELs may not be applicable to the product as a whole and are provided for guidance only

Appropriate engineering controls	All activities involving chemicals should be assessed for their risks to health to ensure exposures are adequately controlled Personal protective equipment should only be considered after other forms of control measures (e g engineering controls) have been suitably evaluated Personal protective equipment should conform to appropriate standards be suitable for use be kept in good condition and properly maintained Your supplier of personal protective equipment should be consulted for advice on selection and appropriate standards For further information contact your national organisation for standards Provide exhaust ventilation or other engineering controls to keep the relevant airborne concentrations below their respective occupational exposure limits The final choice of protective equipment will depend upon a risk assessment It is important to ensure that all items of personal protective equipment are compatible
Environmental exposure controls	Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation In some cases fume scrubbers filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels

Individual protection measures

Hygiene measures	Wash hands forearms and face thoroughly after handling chemical products before eating smoking and using the lavatory and at the end of the working period Appropriate techniques should be used to remove potentially contaminated clothing Wash contaminated clothing before reusing Ensure that eyewash stations and safety showers are close to the workstation location
Eye/face protection	Safety glasses with side shields
Skin protection	
Hand protection	Wear protective gloves if prolonged or repeated contact is likely Wear chemical resistant gloves Recommended Nitrile gloves The correct choice of protective gloves depends upon the chemicals being handled the conditions of work and use and the condition of the gloves (even the best chemically resistant glove will break down after repeated chemical exposures) Most gloves provide only a short time of protection before they must be discarded and replaced Because specific work environments and material handling practices vary safety procedures should be developed for each intended application Gloves should therefore be chosen in consultation with the supplier/ manufacturer and with a full assessment of the working conditions Consult your supervisor or Standard Operating Procedure (S O P) for special handling instructions
Body protection	Use of protective clothing is good industrial practice Cotton or polyester/cotton overalls will only provide protection against light superficial contamination that will not soak through to the skin Overalls should be laundered on a regular basis When the risk of skin exposure is high (e g when cleaning up spillages or if there is a risk of splashing) then chemical resistant aprons and/or impervious chemical suits and boots will be required Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product
Other skin protection	Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product
Respiratory protection	In case of insufficient ventilation wear suitable respiratory equipment The correct choice of respiratory protection depends upon the chemicals being handled the conditions of work and use and the condition of the respiratory equipment Safety procedures should be developed for each intended application Respiratory protection equipment should therefore be chosen in consultation with the supplier/manufacturer and with a full assessment of the working conditions

Section 9 Physical and chemical properties

Appearance

Physical state	Liquid
Color	Brown
Odor	Not available
Odor threshold	Not available
pH	Not available
Melting point	Not available
Boiling point	Not available
Flash point	Closed cup 210 C (410 F) [Pensky Martens]
Evaporation rate	Not available
Flammability (solid gas)	Not applicable Based on Physical state
Lower and upper explosive (flammable) limits	Not available
Vapor pressure	Not available
Vapor density	Not available
Density	866 kg/m³ (0 866 g/cm³) at 15 C
Solubility	insoluble in water
Partition coefficient n octanol/water	Not available
Auto ignition temperature	Not available
Decomposition temperature	Not available
Viscosity	Kinematic 78 mm²/s (78 cSt) at 40 C Kinematic 11 4 mm²/s (11 4 cSt) at 100 C

Section 10 Stability and reactivity

Reactivity	No specific test data available for this product Refer to Conditions to avoid and Incompatible materials for additional information
Chemical stability	The product is stable
Possibility of hazardous reactions	Under normal conditions of storage and use hazardous reactions will not occur Under normal conditions of storage and use hazardous polymerization will not occur
Conditions to avoid	Avoid all possible sources of ignition (spark or flame)
Incompatible materials	Reactive or incompatible with the following materials oxidizing materials
Hazardous decomposition products	Under normal conditions of storage and use hazardous decomposition products should not be produced

Section 11 Toxicological information

Information on toxicological effects

Aspiration hazard

Name	Result
Distillates (petroleum) hydrotreated heavy paraffinic	ASPIRATION HAZARD Category 1

Information on the likely routes of exposure	Routes of entry anticipated Dermal Inhalation

Potential acute health effects

Eye contact	No known significant effects or critical hazards

Section 11 Toxicologi information

Skin contact	No known significant effects or critical hazards
Inhalation	Vapor inhalation under ambient conditions is not normally a problem due to low vapor pressure
Ingestion	No known significant effects or critical hazards

Symptoms related to the physical, chemical and toxicological characteristics

Eye contact	No specific data
Skin contact	Adverse symptoms may include the following irritation dryness cracking
Inhalation	No specific data
Ingestion	No specific data

Delayed and immediate effects and also chronic effects from short and long term exposure

Short term exposure

Potential immediate effects	Not available
Potential delayed effects	Not available

Long term exposure

Potential immediate effects	Not available
Potential delayed effects	Not available

Potential chronic health effects

General	USED ENGINE OILS Combustion products resulting from the operation of internal combustion engines contaminate engine oils during use Used engine oil may contain hazardous components which have the potential to cause skin cancer Frequent or prolonged contact with all types and makes of used engine oil must therefore be avoided and a high standard of personal hygiene maintained
Carcinogenicity	No known significant effects or critical hazards
Mutagenicity	No known significant effects or critical hazards
Teratogenicity	No known significant effects or critical hazards
Developmental effects	No known significant effects or critical hazards
Fertility effects	No known significant effects or critical hazards

Numerical measures of toxicity

Acute toxicity estimates

Not available

Section 12 Ecological information

Toxicity

No testing has been performed by the manufacturer

Persistence and degradability

Expected to be biodegradable

Bioaccumulative potential

This product is not expected to bioaccumulate through food chains in the environment

Section 12 Ecological ormation

Mobility in soil

Soil/water partition coefficient (K_{OC})	Not available
Mobility	Spillages may penetrate the soil causing ground water contamination
Other adverse effects	No known significant effects or critical hazards
Other ecological information	Spills may form a film on water surfaces causing physical damage to organisms Oxygen transfer could also be impaired

Section 13 Disposal considerations

Disposal methods The generation of waste should be avoided or minimized wherever possible Significant quantities of waste product residues should not be disposed of via the foul sewer but processed in a suitable effluent treatment plant Dispose of surplus and non recyclable products via a licensed waste disposal contractor Disposal of this product solutions and any by products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements Waste packaging should be recycled Incineration or landfill should only be considered when recycling is not feasible This material and its container must be disposed of in a safe way Empty containers or liners may retain some product residues Avoid dispersal of spilled material and runoff and contact with soil waterways drains and sewers

Section 14 Transport information

	DOT Classification	TDG Classification	IMDG	IATA
UN number	Not regulated	Not regulated	Not regulated	Not regulated
UN proper shipping name				
Transport hazard class(es)				
Packing group				
Environmental hazards	No	No	No	No
Additional information				

Special precautions for user Not available

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code Not available

Section 15 Regulatory information

U S Federal regulations

United States Inventory (TSCA 8b) All components are listed or exempted

SARA 302/304

Composition/information on ingredients

No products were found

Section 15 Regulatory formation

SARA 311/312

Classification	☒ Not applicable

SARA 313

Form R Reporting requirements	This product does not contain any hazardous ingredients at or above regulated thresholds
Supplier notification	This product does not contain any hazardous ingredients at or above regulated thresholds

State regulations

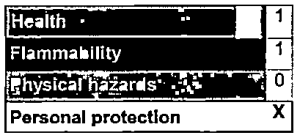
Massachusetts	The following components are listed MINERAL OIL PETROLEUM DISTILLATES HYDROTREATED LIGHT PARAFFINIC
New Jersey	The following components are listed MINERAL OIL (UNTREATED and MILDLY TREATED) MINERAL OIL (UNTREATED and MILDLY TREATED) MINERAL OIL (UNTREATED and MILDLY TREATED)
Pennsylvania	None of the components are listed
California Prop 65	**WARNING** This product contains a chemical known to the State of California to cause cancer white mineral oil

Other regulations

Australia inventory (AICS)	All components are listed or exempted
Canada inventory	All components are listed or exempted
China inventory (IECSC)	At least one component is not listed
Japan inventory (ENCS)	At least one component is not listed
Korea inventory (KECI)	All components are listed or exempted
Philippines inventory (PICCS)	All components are listed or exempted
REACH Status	For the REACH status of this product please consult your company contact as identified in Section 1

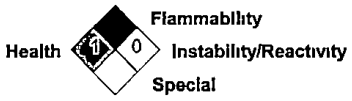
Section 16 Other information

Hazardous Material Information System (U.S.A.)



Caution HMIS® ratings are based on a 0-4 rating scale with 0 representing minimal hazards or risks and 4 representing significant hazards or risks Although HMIS® ratings are not required on SDSs under 29 CFR 1910 1200 the preparer may choose to provide them HMIS® ratings are to be used with a fully implemented HMIS® program HMIS® is a registered mark of the National Paint & Coatings Association (NPCA) HMIS® materials may be purchased exclusively from J J Keller (800) 327-6868

National Fire Protection Association (U.S.A.)



History

Date of issue/Date of revision	10/08/2014
Date of previous issue	03/07/2014

Section 16 Other information

Key to abbreviations

ACGIH = American Conference of Industrial Hygienists
ATE = Acute Toxicity Estimate
BCF = Bioconcentration Factor
CAS Number = Chemical Abstracts Service Registry Number
GHS = Globally Harmonized System of Classification and Labelling of Chemicals
IATA = International Air Transport Association
IBC = Intermediate Bulk Container
IMDG = International Maritime Dangerous Goods
LogPow = logarithm of the octanol/water partition coefficient
MARPOL 73/78 = International Convention for the Prevention of Pollution From Ships 1973 as modified by the Protocol of 1978 (Marpol = marine pollution)
OEL = Occupational Exposure Limit
SDS = Safety Data Sheet
STEL = Short term exposure limit
TWA = Time weighted average
UN = United Nations
UN Number = United Nations Number a four digit number assigned by the United Nations Committee of Experts on the Transport of Dangerous Goods

☑ Indicates information that has changed from previously issued version

Notice to reader

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The data and advice given apply when the product is sold for the stated application or applications You should not use the product other than for the stated application or applications without seeking advice from BP Group

It is the user's obligation to evaluate and use this product safely and to comply with all applicable laws and regulations The BP Group shall not be responsible for any damage or injury resulting from use other than the stated product use of the material from any failure to adhere to recommendations or from any hazards inherent in the nature of the material Purchasers of the product for supply to a third party for use at work have a duty to take all necessary steps to ensure that any person handling or using the product is provided with the information in this sheet Employers have a duty to tell employees and others who may be affected of any hazards described in this sheet and of any precautions that should be taken You can contact the BP Group to ensure that this document is the most current available Alteration of this document is strictly prohibited

Vulcan
Materials Company

MATERIAL S.. ETY DATA SHEET

Effective Date 05/01/2012
Replaces 05/31/2009

Natural Sand and Gravel

SECTION 1 CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Product Name	Formula
Natural Sand and Gravel	Not applicable

Synonyms/Common Names
Construction Aggregate

Manufacturer/Contact Info	General Phone Number
Vulcan Materials Company and its subsidiaries and affiliates 1200 Urban Center Drive Birmingham AL 35242	1 866 401 5424 **Emergency Phone Number** **1 866 401 5424 (3E Company 24 hours/day 7 days/week)**

SECTION 2 COMPOSITION INFORMATION ON INGREDIENTS

Hazardous Components	CAS No	/ by Weight
Natural Sand and Gravel*	None	100
*Composition varies naturally typically contains some quartz (crystalline silica)	14808 60 7	>1

SECTION 3 HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW

WARNING
Dust may irritate the eyes skin and respiratory tract Avoid breathing excessive dust Breathing silica containing dust for prolonged periods in the workplace can cause lung damage and a lung disease called silicosis Several scientific organizations have classified crystalline silica as causing lung cancer in humans Silicosis or lung cancer can result in permanent injury or death

POTENTIAL HEALTH EFFECTS

Primary Routes of Exposure
Inhalation and contact with the eyes and skin

Eye Contact
Dust particles can scratch the eye causing tearing redness a stinging or burning feeling or swelling of the eyes with blurred vision

Skin Contact
Dust particles can scratch and irritate the skin with redness an itching or burning feeling swelling of the skin and/or rash

Skin Absorption
Not expected to be a significant exposure route

Inhalation
Dusts may irritate the nose throat and respiratory tract by mechanical abrasion Coughing sneezing and shortness of breath may occur

Ingestion
Expected to be practically non toxic Ingestion of large amounts may cause gastrointestinal irritation including nausea vomiting diarrhea and blockage

Effects Following Prolonged or Repeated Exposure
Exposure to high levels of respirable crystalline silica is associated with silicosis lung cancer and autoimmune disorders For additional information see Section 11

Carcinogenicity
Crystalline silica, a component in this product has been listed as a carcinogen by the International Agency for Research on Cancer (IARC) the National Toxicology Program (NTP) and/or the Occupational Safety and Health Administration (OSHA) For additional information see Section 11

POTENTIAL HEALTH EFFECTS

Signs and Symptoms of Exposure

Symptoms of silicosis may include (but are not limited) to shortness of breath difficulty breathing with or without exertion coughing diminished work capacity diminished chest expansion reduction of lung volume right heart enlargement and/or failure

Medical Conditions Aggravated by Exposure

Pre-existing medical conditions that may be aggravated by exposure include disorders of the eye skin and lung (including asthma and other breathing disorders) If addicted to tobacco smoking will impair the ability of the lungs to clear themselves of dust

SECTION 4 FIRST AID MEASURES

Eyes

Immediately flush eye(s) with plenty of clean water for at least 15 minutes while holding the eyelid(s) open Occasionally lift the eyelid(s) to ensure thorough rinsing Beyond flushing do not attempt to remove material from the eye(s) Contact a physician if irritation persists or later develops

Skin

Wash affected areas thoroughly with mild soap and fresh water Contact a physician if irritation persists or later develops

Inhalation

Remove to fresh air Dust in throat and nasal passages should clear spontaneously Contact a physician if irritation persists or if breathing is difficult

Ingestion

If person is conscious do not induce vomiting Give large quantity of water and get medical attention Never attempt to make an unconscious person drink

Notes to Physician

Not all individuals with silicosis will exhibit symptoms of the disease However silicosis can be progressive and symptoms can appear at any time even years after exposures have ceased. Persons with silicosis have an increased risk of pulmonary tuberculosis infection

For emergencies, contact 3E Company at 1 866-401 5424 (24 hours/day, 7 days/week)

SECTION 5 FIREFIGHTING MEASURES

Flash Point (Method Used)	Flammable Limits
Not applicable	LEL Not applicable UEL Not applicable

Autoignition Temperature

Not applicable

Extinguishi g Media

The presence of this material in a fire does not hinder the use of any standard extinguishing medium Use extinguishing medium for surrounding fire

Special Firefighting Procedures

None

Unusual Fire and Explosion Hazards

Contact with powerful oxidizing agents may cause fire and/or explosions (see Section 10 of MSDS)

SECTION 6 ACCIDENTAL RELEASE MEASURES

Precautions if Material is Spilled or Released

Persons involved in cleanup processes should first observe precautions (as appropriate) identified in Section 8 of this MSDS Spilled material where dust is generated may overexpose cleanup personnel to respirable crystalline silica containing dust Do not dry sweep or use compressed air for clean up Wetting of spilled material and/or use of respiratory protective equipment may be necessary Prevent spilled materials from entering streams drains or sewers

For emergencies contact 3E Company at 1 866-401 5424 (24 hours/day, 7 days/week)

Waste Disposal Methods

Dispose of waste materials in accordance with applicable federal state and local laws and regulations

Environmental Precautions

Not applicable

SECTION 7 HANDLING AND ST GE

Storage

Do not store near food and beverages or smoking materials

Handling

Respirable crystalline silica containing dust may be generated during processing handling and storage Use personal protection and controls identified in Section 8 of this MSDS as appropriate

MANUFACTURED SAND MADE FROM THIS PRODUCT MUST NOT BE USED AS AN ABRASIVE BLASTING AGENT

SECTION 8 EXPOSURE CONTROLS AND PERSONAL PROTECTION

Legend

NE = Not Established PEL – Permissible Exposure Limit TLV – Threshold Limit Value REL = Recommended Exposure Limit OSHA = Occupational Safety and Health Administration MSHA = Mine Safety and Health Administration NIOSH = National Institute for Occupational Safety and Health ACGIH = American Conference of Governmental Industrial Hygienists

Component	OSHA/MSHA PEL	ACGIH TLV	NIOSH REL
Particulates not otherwise classified	15 mg/m³ (total dust) 5 mg/m³ (respirable fraction)	10 mg/m³ (inhalable fraction) 3 mg/m (respirable fraction)	NE
Respirable dust containing silica	10 mg/m³ -- (% silica + 2)	Use Respirable Silica TLV	Use Respirable Silica REL
Total dust containing silica	OSHA 30 mg/m³ ÷ (/ silica + 2) MSHA 30 mg/m³ – (% silica + 3)	NE	NE
Respirable Crystalline Silica (quartz)	NE Use respirable dust PEL	0 025 mg/m	0 05 mg/m
Respirable Tridymite and Cristobalite (other forms of crystalline silica)	½ of OSHA and MSHA respirable dust PEL	0 025 mg/m	0 05 mg/m³

Eye Protection

Safety glasses with side shields should be worn as minimum protection Dust goggles should be worn when excessively (visible) dusty conditions are present or are anticipated

Skin Protection (Protective Gloves/Clothing)

Use gloves to provide hand protection from abrasion In dusty conditions use long sleeve shirts Wash work clothes after each use

Respiratory Protection

All respirators must be NIOSH approved for the exposure levels present. (See NIOSH Respirator Selection Guide) The need for respiratory protection should be evaluated by a qualified safety and health professional Activities that generate dust require the use of an appropriate dust respirator where dust levels exceed or are likely to exceed allowable exposure limits For respirable silica levels that exceed or are likely to exceed an 8 hr Time Weighted Average (TWA) of 0 5 mg/m a high efficiency particulate filter respirator must be worn at a minimum however if respirable silica levels exceed or are likely to exceed an 8 hr TWA of 5 0 mg/m³ a positive pressure full face respirator or equivalent is required Respirator use must comply with applicable MSHA (42 CFR 84) or OSHA (29 CFR 1910 134) standards which include provisions for a user training program respirator inspection repair and cleaning respirator fit testing medical surveillance and other requirements

Engineering Control

Activities that generate dust require the use of general ventilation local exhaust and/or wet suppression methods to maintain exposures below allowable exposure limits

Other

Respirable dust and quartz levels should be monitored regularly to determine worker exposure levels Exposure levels in excess of allowable exposure limits should be reduced by all feasible engineering controls including (but not limited to) wet suppression ventilation process enclosure and enclosed employee workstations

SECTION 9 PHYSICAL AND CHEMICAL PROPERTIES

Boiling Point	pH	Specific Gravity (H_2O 1)
Not applicable	Not applicable	2 55 2 80
Evaporation Rate (Butyl Acetate = 1)	**Melting Point**	**Vapor Pressure (mm Hg)**
0	Not applicable	Not applicable
Solubility in Water	**Vapor Density (Air = 1)**	**/ Volatile**
0	Not applicable	Not applicable

Appearance and Odor

Angular or round multicolored particles No odor

SECTION 10 STABILITY AND RE IVITY

Stability

Stable under normal temperatures and pressures

Conditions to Avoid

Contact with incompatible materials should be avoided (see below) See Sections 5 and 7 for additional information

Incompatibility (Materials to Avoid)

Contact with powerful oxidizing agents such as fluorine boron trifluoride chlorine trifluoride manganese trifluoride an oxygen difluoride may cause fire and/or explosions Silica dissolves readily in hydrofluoric acid producing a corrosive gas silicon tetrafluoride

Hazardous Decomposition or Byproducts

Silica-containing respirable dust particles may be generated When heated, quartz is slowly transformed into tridymite (above 860 C/1580 F) and cristobalite (above 1470 C/2678 F) Both tridymite and cristobalite are other forms of crystalline silica and are considered more fibrogenic to the lungs than quartz

Hazardous Polymerization

Not known to occur

SECTION 11 TOXICOLOGICAL INFORMATION

Acute Effects

No specific data on product

Effects Following Prolonged or Repeated Exposure

Prolonged overexposure to respirable dusts in excess of allowable exposure limits can cause inflammation of the lungs leading to possible fibrotic changes a medical condition known as pneumoconiosis

Prolonged and repeated inhalation of respirable crystalline silica containing dust in excess of allowable exposure limits may cause a chronic form of silicosis an incurable lung disease that may result in permanent lung damage or death Chronic silicosis generally occurs after 10 years or more of overexposure a more accelerated type of silicosis may occur between 5 and 10 years of higher levels of exposure In early stages of silicosis not all individuals will exhibit symptoms (signs) of the disease However silicosis can be progressive and symptoms can appear at any time even years after exposure has ceased Symptoms of silicosis may include but are not limited to the following shortness of breath difficulty breathing with or without exertion coughing diminished work capacity diminished chest expansion reduction of lung volume right heart enlargement and/or failure Persons with silicosis have an increased risk of pulmonary tuberculosis infection

Repeated overexposures to very high levels of respirable crystalline silica (quartz cristobalite tridymite) for periods as short as six months may cause acute silicosis Acute silicosis is a rapidly progressive incurable lung disease that is typically fatal Symptoms include (but are not limited to) shortness of breath cough fever weight loss and chest pain

Respirable dust containing newly broken silica particles has been shown to be more hazardous to animals in laboratory tests than respirable dust containing older silica particles of similar size Respirable silica particles which had aged for sixty days or more showed less lung injury in animals than equal exposures of respirable dust containing newly broken particles of silica

There are reports in the literature suggesting that excessive crystalline silica exposure may be associated with autoimmune disorders and other adverse health effects involving the kidney In particular the incidence of scleroderma (thickening of the skin caused by swelling and thickening of fibrous tissue) appears to be higher in silicotic individuals To date the evidence does not conclusively determine a causal relationship between silica exposure and these adverse health effects

Carcinogenicity

Epidemiology studies on the association between crystalline silica exposure and lung cancer have had both positive and negative results There is some speculation that the source and type of crystalline silica may play a role Studies of persons with silicosis indicate an increased risk of developing lung cancer a risk that increases with the level and duration of exposure It is not clear whether lung cancer develops in non silicotic patients Several studies of silicotics do not account for lung cancer confounders especially smoking which have been shown to increase the risk of developing lung disorders including emphysema and lung cancer

In October 1996 an IARC Working Group designated respirable crystalline silica as carcinogenic (Group 1) The NTP s Report on Carcinogens 9th edition lists respirable crystalline silica as a known human carcinogen In year 2000 the American Conference of Governmental Industrial Hygienists (ACGIH) listed respirable crystalline silica (quartz) as a suspected human carcinogen (A 2) These classifications are based on sufficient evidence of carcinogenicity in certain experimental animals and on selected epidemiological studies of workers exposed to crystalline silica

SECTION 12 ECOLOGICAL INFORMATION

Aquatic Ecotoxicological Data

No specific data on this product Not expected to be toxic to aquatic organisms

Environmental Fate Data

No specific data on this product

Other

No specific data on this product

SECTION 13 DISPOSAL CONSII ATIONS

Place contaminated materials in appropriate containers and dispose of in a manner consistent with applicable federal state and local regulations Prevent from entering drainage sewer systems and unintended bodies of water It is the responsibility of the user to determine at the time of disposal whether product meets criteria for hazardous waste Product uses transformations mixture and processes may render the resulting material hazardous

SECTION 14 TRANSPORT INFORMATION [Note Not intended to be all inclusive]

DOT Proper Shipping Name	DOT Hazard Classification
Not regulated	Not applicable
UN/NA Number	**DOT Packing Group**
Not regulated	Not applicable

Labeling Requirements

Not applicable Label as required by the OSHA Hazard Communication standard [29 CFR 1910 1200(f)] MSHA Hazard Communication standard [30 CFR Part 47] and applicable state and local regulations

SECTION 15 REGULATORY INFORMATION [Note Not intended to be all inclusive]

Toxic Substances Control Act (TSCA)

The components in this product are listed on the TSCA Inventory or are exempt

Comprehensive Environmental Response Compensation and Liability Act (CERCLA)

Releases of this material to air land or water are not reportable to the National Response Center under the Comprehensive Environmental Response Compensation, and Liability Act (CERCLA) or to state and local emergency planning committees under the Superfund Amendments and Reauthorization Act

Superfund Amendments and Reauthorization Act of 1986 (SARA) Title III

Section 302 extremely hazardous substances.
None

Section 311/312 hazard categories
Delayed Health

Section 313 reportable ingredients at or above de minimus concentrations
None

California Proposition 65

This product contains a chemical (crystalline silica) known to the State of California to cause cancer

State Regulatory Lists

Each state may promulgate standards more stringent than the federal government This section cannot encompass an inclusive list or all state regulations Therefore the user should review the components listed in Section 2 and consult state or local authorities for specific regulations that apply

SECTION 16 OTHER INFORMATION

Disclaimer

NO WARRANTY IS MADE EXPRESS OR IMPLIED OF MERCHANTABILITY FITNESS FOR A PARTICULAR PURPOSE OR OTHERWISE

Vulcan Materials Company and its subsidiaries and affiliates ('Vulcan ') believe the information contained herein is accurate however Vulcan makes no guarantees with respect to such accuracy and assumes no liability whatsoever in connection with the use of any information contained herein by any party The provision of the information contained herein is not intended to be and should not be construed as legal advice or as ensuring compliance with any federal state or local laws rules or regulations Any party using any information contained herein should review all applicable laws rules and regulations prior to use

Vulcan Materials Company **its subsidiaries and affiliates**
1200 Urban Center Drive
Birmingham, AL 35242

MSDS 3239-003

Vulcan
Materials Company

Dear Customer/Contractor

Please find attached a material safety data sheet (MSDS) for the product that you purchased from Vulcan Materials Company or one of its subsidiaries or affiliates (Vulcan) This is a revised MSDS and replaces any previous versions of the MSDS for this product This MSDS is provided to you as required by the Occupational Safety and Health Administration s (OSHA) Hazard Communication Standard (29 CFR 1910 1200) the Mine Safety and Health Administration s (MSHA) Hazard Communication Standard (30 CFR Part 47) and/or any applicable state Right to-Know laws

It is the responsibility of your company to communicate this information to your employees customers and contractors who may use or come in contact with this product Further if you distribute this product Vulcan requests and applicable laws may require that you forward this MSDS to your customers

Please direct this information to the person responsible for safety and health compliance at your company If you have questions about the MSDS please contact Vulcan at 1200 Urban Center Drive Birmingham AL 35242 or 1-866-401 5424

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La MSDS puede obtenerse en www vulcanmaterials com o llamando al 1 866 401 5424

Sincerely

Chad E McDougal CIH CSP

Manager Occupational Health

Vulcan Materials Company

MATERIAL S.. ETY DATA SHEET

Effective Date 05/01/2012
Replaces 05/31/2009

Limestone

SECTION 1 CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Product Name	Formula
Limestone	Not applicable

Synonyms/Common Names

Aggregate Aglime Barn Lime Coverstone Flexible Base Fluxing Agent Manufactured Sand Mineral Filler Screenings

Manufacturer/Contact Info	General Phone Number
Vulcan Materials Company and its subsidiaries and affiliates 1200 Urban Center Drive Birmingham, AL 35242	1 866 401 5424 **Emergency Phone Number** **1 866 401 5424 (3E Company 24 hours/day 7 days/week)**

SECTION 2 COMPOSITION INFORMATION ON INGREDIENTS

Hazardous Components	CAS No	% by Weight
Limestone* *Composition varies naturally typically contains some quartz (crystalline silica)	1317-65 3 14808 60 7	100 >1

SECTION 3 HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW

WARNING
Dust may irritate the eyes skin and respiratory tract Avoid breathing excessive dust Breathing silica containing dust for prolonged periods in the workplace can cause lung damage and a lung disease called silicosis Several scientific organizations have classified crystalline silica as causing lung cancer in humans Silicosis or lung cancer can result in permanent injury or death

POTENTIAL HEALTH EFFECTS

Primary Routes of Exposure
Inhalation and contact with the eyes and skin

Eye Contact
Dust particles can scratch the eye causing tearing redness a stinging or burning feeling or swelling of the eyes with blurred vision

Skin Contact
Dust particles can scratch and irritate the skin with redness an itching or burning feeling swelling of the skin and/or rash

Skin Absorption
Not expected to be a significant exposure route

Inhalation
Dusts may irritate the nose throat and respiratory tract by mechanical abrasion Coughing sneezing and shortness of breath may occur

Ingestion
Expected to be practically non toxic Ingestion of large amounts may cause gastrointestinal irritation including nausea vomiting diarrhea and blockage

Effects Following Prolonged or Repeated Exposure
Exposure to high levels of respirable crystalline silica is associated with silicosis lung cancer and autoimmune disorders For additional information see Section 11

Carcinogenicity
Crystalline silica has been listed as a carcinogen by the International Agency for Research on Cancer (IARC) the National Toxicology Program (NTP) and the Occupational Safety and Health Administration (OSHA) For additional information see Section 11

POTENTIAL HEALTH EFFECTS

Signs and Symptoms of Exposure

Symptoms of silicosis may include (but are not limited to) shortness of breath difficulty breathing with or without exertion coughing diminished work capacity diminished chest expansion reduction of lung volume right heart enlargement and/or failure

Medical Conditions Aggravated by Exposure

Irritated or broken skin increases chance of contact dermatitis Pre-existing medical conditions that may be aggravated by exposure include disorders of the eye skin and lung (including asthma and other breathing disorders) Smoking tobacco will impair the ability of the lungs to clear themselves of dust.

SECTION 4 FIRST AID MEASURES

Eyes

Immediately flush eye(s) with plenty of clean water for at least 15 minutes while holding the eyelid(s) open Occasionally lift the eyelid(s) to ensure thorough rinsing Beyond flushing do not attempt to remove material from the eye(s) Contact a physician if irritation persists or later develops

Skin

Wash affected areas thoroughly with mild soap and fresh water Contact a physician if irritation persists or later develops

Inhalation

Remove to fresh air Dust in throat and nasal passages should clear spontaneously Contact a physician if irritation persists or if breathing is difficult

Ingestion

If person is conscious do not induce vomiting Give large quantity of water and get medical attention Never attempt to make an unconscious person drink

Notes to Physician

Not all individuals with silicosis will exhibit symptoms of the disease However silicosis can be progressive and symptoms can appear at any time even years after exposures have ceased Persons with silicosis have an increased risk of pulmonary tuberculosis infection

For emergencies, contact 3E Company at 1 866 401 5424 (24 hours/day, 7 days/week)

SECTION 5 FIREFIGHTING MEASURES

Flash Point (Method Used)	Flammable Limits	
Not applicable	LEL Not applicable	UEL Not applicable

Autoignition Temperature

Not applicable

Extinguishing Media

The presence of this material in a fire does not hinder the use of any standard extinguishing medium Use extinguishing medium for surrounding fire

Special Firefighting Procedures

None

Unusual Fire and Explosion Hazards

Contact with powerful oxidizing agents may cause fire and/or explosions (see Section 10 of MSDS)

SECTION 6 ACCIDENTAL RELEASE MEASURES

Precautions if Material is Spilled or Released

Persons involved in cleanup processes should first observe precautions (as appropriate) identified in Section 8 of this MSDS Wet product should be removed from roads or other surfaces where it may interfere with traffic Prevent from entering into sewers or drainage systems where it can harden and clog flow If hardened material is spilled and dust is generated cleanup personnel may be exposed to respirable crystalline silica Do not dry sweep or use compressed air for clean up Wetting of spilled material and/or use of respiratory protective equipment may be necessary

For emergencies contact 3E Company at 1 866-401 5424 (24 hours/day 7 days/week)

Waste Disposal Methods

Dispose of waste materials in accordance with applicable federal state and local laws and regulations

Environmental Precautions

Not applicable

SECTION 7 HANDLING AND ST GE

Storage

Do not store near food and beverages or smoking materials

Handling

Respirable crystalline silica containing dust may be generated during processing handling and storage Use personal protection and controls identified in Section 8 of this MSDS as appropriate

MANUFACTURED SAND MADE FROM THIS PRODUCT MUST NOT BE USED AS AN ABRASIVE BLASTING AGENT

SECTION 8 EXPOSURE CONTROLS AND PERSONAL PROTECTION

Legend

NE = Not Established PEL = Permissible Exposure Limit TLV = Threshold Limit Value REL = Recommended Exposure Limit, OSHA = Occupational Safety and Health Administration MSHA = Mine Safety and Health Administration NIOSH = National Institute for Occupational Safety and Health ACGIH = American Conference of Governmental Industrial Hygienists

Component	OSHA/MSHA PEL	ACGIH TLV	NIOSH REL
Limestone (Calcium Carbonate)	15 mg/m³ (total dust) 5 mg/m³ (respirable fraction)	10 mg/m³ (total dust as calcium carbonate)	15 mg/m³ (total dust) 5 mg/m (respirable fraction)
Respirable dust containing silica	10 mg/m − (% silica + 2)	Use Respirable Silica TLV	Use Respirable Silica REL
Total dust containing silica	OSHA 30 mg/m³ − (% silica + 2) MSHA 30 mg/m − (% silica + 3)	NE	NE
Respirable Crystalline Silica (quartz)	NE Use respirable dust PEL	0 025 mg/m	0 05 mg/m³
Respirable Tridymite and Cristobalite (other forms of crystalline silica)	½ of OSHA and MSHA respirable dust PEL	0 025 mg/m	0 05 mg/m³

Eye Protection

Safety glasses with side shields should be worn as minimum protection Dust goggles should be worn when excessively (visible) dusty conditions are present or are anticipated

Skin Protection (Protective Gloves/Clothing)

Use gloves to provide hand protection from abrasion In dusty conditions use long sleeve shirts Wash work clothes after each use

Respiratory Protection

All respirators must be NIOSH approved for the exposure levels present. (See NIOSH Respirator Selection Guide) The need for respiratory protection should be evaluated by a qualified safety and health professional Activities that generate dust require the use of an appropriate dust respirator where dust levels exceed or are likely to exceed allowable exposure limits For respirable silica levels that exceed or are likely to exceed an 8 hr Time Weighted Average (TWA) of 0 5 mg/m a high efficiency particulate filter respirator must be worn at a minimum however if respirable silica levels exceed or are likely to exceed an 8 hr TWA of 5 0 mg/m³ a positive pressure full face respirator or equivalent is required Respirator use must comply with applicable MSHA (42 CFR 84) or OSHA (29 CFR 1910 134) standards which include provisions for a user training program respirator inspection repair and cleaning respirator fit testing medical surveillance and other requirements

Engineering Controls

Activities that generate dust require the use of general ventilation, local exhaust and/or wet suppression methods to maintain exposures below allowable exposure limits

Other

Respirable dust and quartz levels should be monitored regularly to determine worker exposure levels Exposure levels in excess of allowable exposure limits should be reduced by all feasible engineering controls including (but not limited to) wet suppression ventilation process enclosure and enclosed employee workstations

SECTION 9 PHYSICAL AND CHEMICAL PROPERTIES

Boiling Point.	pH	Specific Gravity (H_2O = 1)
Not applicable	Not applicable	2 4 2 85
Evaporation Rate (Butyl Acetate = 1)	**Melting Point**	**Vapor Pressure (mm Hg)**
0	Not applicable	Not applicable
Solubility in Water	**Vapor Density (Air = 1)**	**/ Volatile**
0	Not applicable	Not applicable

Appearance and Odor

Angular gray white and tan particles ranging in size from powder to boulders No odor

SECTION 10 STABILITY AND RE IVITY

Stability

Stable under normal temperatures and pressures

Conditions to Avoid

Contact with incompatible materials should be avoided (see below) See Sections 5 and 7 for additional information

Incompatibility (Materials to Avoid)

Limestone ignites on contact with fluorine and is incompatible with acids aluminum ammonium salts and magnesium Silica reacts violently with powerful oxidizing agents such as fluorine boron trifluoride chlorine trifluoride manganese trifluoride and oxygen difluoride yielding possible fire and/or explosions Silica dissolves readily in hydrofluoric acid producing a corrosive gas silicon tetrafluoride

Hazardous Decomposition or Byproducts

Silica-containing respirable dust particles may be generated When heated quartz is slowly transformed into tridymite (above 860 C/1580 F) and cristobalite (above 1470 C/2678 F) Both tridymite and cristobalite are other forms of crystalline silica and are considered more fibrogenic to the lungs than quartz

Hazardous Polymerization

Not known to occur

SECTION 11 TOXICOLOGICAL INFORMATION

Acute Effects

No specific data on product Material similar to limestone (calcium carbonate CAS# 471 34 1) has oral LD50 (rats) = 6450 mg/kg

Effects Following Prolonged or Repeated Exposure

Prolonged overexposure to respirable dusts in excess of allowable exposure limits can cause inflammation of the lungs leading to possible fibrotic changes a medical condition known as pneumoconiosis

Prolonged and repeated inhalation of respirable crystalline silica containing dust in excess of allowable exposure limits may cause a chronic form of silicosis an incurable lung disease that may result in permanent lung damage or death Chronic silicosis generally occurs after 10 years or more of overexposure a more accelerated type of silicosis may occur between 5 and 10 years of higher levels of exposure In early stages of silicosis not all individuals will exhibit symptoms (signs) of the disease However silicosis can be progressive and symptoms can appear at any time even years after exposure has ceased Symptoms of silicosis may include but are not limited to the following shortness of breath difficulty breathing with or without exertion coughing diminished work capacity diminished chest expansion reduction of lung volume right heart enlargement and/or failure Persons with silicosis have an increased risk of pulmonary tuberculosis infection

Repeated overexposures to very high levels of respirable crystalline silica (quartz cristobalite tridymite) for periods as short as six months may cause acute silicosis Acute silicosis is a rapidly progressive incurable lung disease that is typically fatal Symptoms include (but are not limited to) shortness of breath cough fever weight loss and chest pain

Respirable dust containing newly broken silica particles has been shown to be more hazardous to animals in laboratory tests than respirable dust containing older silica particles of similar size Respirable silica particles which had aged for sixty days or more showed less lung injury in animals than equal exposures of respirable dust containing newly broken particles of silica

There are reports in the literature suggesting that excessive crystalline silica exposure may be associated with autoimmune disorders and other adverse health effects involving the kidney In particular the incidence of scleroderma (thickening of the skin caused by swelling and thickening of fibrous tissue) appears to be higher in silicotic individuals To date the evidence does not conclusively determine a causal relationship between silica exposure and these adverse health effects

Carcinogenicity

Epidemiology studies on the association between crystalline silica exposure and lung cancer have had both positive and negative results There is some speculation that the source and type of crystalline silica may play a role Studies of persons with silicosis indicate an increased risk of developing lung cancer a risk that increases with the level and duration of exposure It is not clear whether lung cancer develops in non silicotic patients Several studies of silicotics do not account for lung cancer confounders especially smoking which have been shown to increase the risk of developing lung disorders including emphysema and lung cancer

In October 1996 an IARC Working Group designated respirable crystalline silica as carcinogenic (Group 1) The NTP s Report on Carcinogens 9th edition lists respirable crystalline silica as a known human carcinogen In year 2000 the American Conference of Governmental Industrial Hygienists (ACGIH) listed respirable crystalline silica (quartz) as a suspected human carcinogen (A 2) These classifications are based on sufficient evidence of carcinogenicity in certain experimental animals and on selected epidemiological studies of workers exposed to crystalline silica

SECTION 12 ECOLOGICAL INFORMATION

Aquatic Ecotoxicological Data

No specific data on this product Not expected to be toxic to aquatic organisms

Environmental Fate Data

No specific data on this product

Other

No specific data on this product

SECTION 13 DISPOSAL CONSII _ ATIONS

Place contaminated materials in appropriate containers and dispose of in a manner consistent with applicable federal state and local regulations Prevent from entering drainage sewer systems and unintended bodies of water It is the responsibility of the user to determine at the time of disposal whether product meets criteria for hazardous waste Product uses transformations mixture and processes may render the resulting material hazardous

SECTION 14 TRANSPORT INFORMATION [Note Not intended to be all inclusive]

DOT Proper Shipping Name	DOT Hazard Classification
Not regulated	Not applicable
UN/NA Number	**DOT Packing Group**
Not regulated	Not applicable

Labeling Requirements

Not applicable Label as required by the OSHA Hazard Communication standard [29 CFR 1910 1200(f)] MSHA Hazard Communication standard [30 CFR Part 47] and applicable state and local regulations

SECTION 15 REGULATORY INFORMATION [Note Not intended to be all inclusive]

Toxic Substances Control Act (TSCA)

The components in this product are listed on the TSCA Inventory or are exempt

Comprehensive Environmental Response Compensation and Liability Act (CERCLA)

Releases of this material to air land or water are not reportable to the National Response Center under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) or to state and local emergency planning committees under the Superfund Amendments and Reauthorization Act.

Superfund Amendments and Reauthorization Act of 1986 (SARA) Title III

Section 302 extremely hazardous substances
None

Section 311/312 hazard categories
Delayed Health

Section 313 reportable ingredients at or above de minimus concentrations
None

California Proposition 65

This product contains a chemical (crystalline silica) known to the State of California to cause cancer

State Regulatory Lists

Each state may promulgate standards more stringent than the federal government. This section cannot encompass an inclusive list or all state regulations Therefore the user should review the components listed in Section 2 and consult state or local authorities for specific regulations that apply

SECTION 16 OTHER INFORMATION

Disclaimer

NO WARRANTY IS MADE EXPRESS OR IMPLIED OF MERCHANTABILITY FITNESS FOR A PARTICULAR PURPOSE OR OTHERWISE

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Vulcan Materials Company , its subsidiaries and affiliates
1200 Urban Center Drive
Birmingham, AL 35242

MSDS 3239-001

Vulcan
Materials Company

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La MSDS puede obtenerse en www vulcanmaterials com o llamando al 1 866 401 5424

Sincerely

Chad E McDougal CIH CSP

Manager Occupational Health

LEHIGH
HEIDELBERGCEMENT Group

LEHIGH CEMENT COMPANY
MATERIAL SAFETY DATA SHEET
FOR
PORTLAND CEMENT

REVISED DATE OCTOBER, 2002

1 PRODUCT/COMPANY IDENTIFICATION

Supplier
Lehigh Cement Company
7660 Imperial Way
Allentown, PA 18195
610 / 366 4600
Contact Number 1 800 462 9071

Chemical Family Calcium Compounds

Chemical Name and Synonyms
Portland Cement (CAS # 65997 15 1) Hydraulic Cement Types I II III V
Trade Name and Synonyms
Lehigh Portland Cement

2 EMERGENCY AND FIRST AID

EMERGENCY INFORMATION

Portland cement is a light gray or white powder When in contact with moisture in eyes or on skin or when mixed with water portland cement becomes highly caustic (pH > 12) and will damage or burn (as severely as third degree) the eyes or skin Inhalation may cause irritation to the moist mucous membranes of the nose throat and upper respiratory system or may cause or may aggravate certain lung diseases or conditions Use exposure controls or personal protection methods described in Section 10

EYES

Immediately flush eye thoroughly with water Continue flushing eye for at least 15 minutes including under lids to remove all particles Call physician immediately

SKIN

Wash skin with cool water and pH neutral soap or a mild detergent Seek medical treatment if irritation or inflammation develops or persists Seek immediate medical treatment in the event of burns

INHALATION

Remove person to fresh air If breathing is difficult, administer oxygen If not breathing give artificial respiration Seek medical help if coughing and other symptoms do not subside Inhalation of large amounts of portland cement require immediate medical attention

INGESTION

Do not induce vomiting If conscious have the victim drink plenty of water and call a physician immediately

ACCIDENTIAL RELEASE MEASURES

Clean up spilled material without causing it to become airborne or mixed with water to limit potential harm Wear appropriate personal protective equipment Dispose of waste material according to local state or federal regulations

3 COMPOSITION INFORMATION

DESCRIPTION

This product consists of finely ground portland cement clinker mixed with a small amount of gypsum (calcium sulfate dihydrate) The portland cement clinker is made by heating to a high temperature a mixture of substances such as limestone sand clay and shale Portland cement is essentially hydraulic calcium silicates contained in a crystalline mass not separable into individual components Major compounds are

$3CaO\ SiO_2$	Tricalcium Silicate	CAS #12168 85 3
$2CaO\ SiO_2$	Dicalcium Silicate	CAS #10034 77 2
$3CaO\ Al_2O_3$	Tricalcium Aluminate	CAS #12042 78 3
$4CaO\ Al_2O_3\ Fe_2O_3$	Tetracalcium aluminoferrite	CAS #12068 35 8
$CaSO_4\ 2H_2O$	Calcium Sulfate dihydrate (Gypsum)	CAS #7778 18 9 (CAS #13397 24 5)

4 HAZARDOUS INGREDIENTS

COMPONENT	OSHA PEL (8 Hour TWA)	ACGIH TLV TWA (1995 1996)	NIOSH REL (8 Hour TWA)
Portland Cement (CAS #65997 15 1) 50 to 95/ by weight	5 mg respirable dust/m^3 15 mg total dust/m^3	10 mg total dust/m^3	
Calcium sulfate (CAS #7778 18 9) [Gypsum (CAS #13397 24 5)] 0 to 10/ by weight	5 mg respirable dust/m^3 15 mg total dust/m^3	10 mg total dust/m^3	
Iron oxide (CAS #1309 37 1) 0 to 15/ by weight	10 mg/m^3	5 mg/m^3	
Calcium carbonate (CAS #1317 65 3) 0 to 5/ by weight	5 mg respirable dust/m^3 15 mg total dust/m^3	10 mg total dust/m^3	
Magnesium oxide (CAS #1309 48-4) 0 to 5/ by weight	15 mg total dust/m^3	10 mg total dust/m^3	
Calcium oxide (CAS #1305 78 8) 0 to 5/[1] by weight	5 mg/m^3	2 mg/m^3	
Crystalline silica (CAS #14808 60-7) 0 to 5/ by weight	10 mg of respirable dust/m^3 / SiO + 2 30 mg of total dust/m^3 / SiO_2 + 2 250 million particles/ft^3 / SiO_2 + 5	0 05 mg respirable quartz/m^3	0 05 mg respirable quartz dust/m^3

TRACE INGREDIENTS

Due to the use of substances mined from the earth s crust trace amounts of naturally occurring potentially harmful constituents may be detected during chemical analysis Portland cement may contain up to 0 75% insoluble residue A small amount of this residue includes free crystalline silica Portland cement also may contain trace (<0 05%) amounts of chromium salts or compounds (including hexavalent chromium) or other metals (including nickel compounds) found to be hazardous or toxic in some chemical forms These metals are present mostly as trace substitutions within the principal minerals Other trace constituents may include potassium and sodium sulfate compounds

[1] If Portland/Lime blended product 0 to 25% values

5 HAZARD IDENTIFICATION

POTENTIAL HEALTH EFFECTS	NOTE Potential health effects may vary depending upon the duration and degree of exposure To reduce or eliminate health hazards associated with this product use exposure controls or personal protection methods as described in Section 10
EYE CONTACT	(Acute/Chronic) Exposure to airborne dust may cause immediate or delayed irritation or inflammation of the cornea Eye contact by larger amounts of dry powder or splashes of wet portland cement may cause effects ranging from moderate eye irritation to chemical burns and blindness
SKIN CONTACT	(Acute) Exposure to dry portland cement may cause drying of the skin with consequent mild irritation or more significant effects attributable to aggravation of other conditions Discomfort or pain cannot be relied upon to alert a person to a hazardous skin exposure (Chronic) Dry portland cement coming in contact with wet skin or exposure to wet portland cement may cause more severe skin effects including thickening cracking or fissuring of the skin Prolonged exposure can cause severe skin damage in the form of chemical (caustic) burns (Acute/Chronic) Some individuals may exhibit an allergic response upon exposure to portland cement The response may appear in a variety of forms ranging from a mild rash to severe skin ulcers
INHALATION	(Acute) Exposure to portland cement may cause irritation to the moist mucous membranes of the nose throat and upper respiratory system Pre existing upper respiratory and lung diseases may be aggravated by inhalation of portland cement (Chronic) Inhalation exposure to free crystalline silica may cause delayed lung injury including silicosis a disabling and potentially fatal lung disease and/or cause or aggravate other lung diseases or conditions
INGESTION	(Acute/Chronic) Internal discomfort or ill effects are possible if large quantities are swallowed
CARCINOGENIC POTENTIAL	Portland cement is not recognized as a carcinogen by NTP OSHA or IARC However it may contain trace amounts of heavy metals recognized as carcinogens by these organizations In addition IARC classifies crystalline silica, a trace constituent as a known human carcinogen (Group I) NTP has characterized respirable silica as reasonably anticipated to be a carcinogen (See also Section 13)

6 PHYSICAL/CHEMICAL DATA

APPEARANCE/ODOR.	Gray white or colored powder odorless	PHYSICAL STATE	Solid (Powder)
BOILING POINT	> 1000 C	MELTING POINT	Not applicable
VAPOR PRESSURE	Not applicable	VAPOR DENSITY	Not applicable
pH (IN WATER) (ASTM D 1293 95)	12 to 13	SOLUBILITY IN WATER.	Slightly soluble (0 1 / to 1 0 /)
SPECIFIC GRAVITY (H_2O = 1 0)	3 15	EVAPORATION RATE	Not applicable

7 FIRE AND EXPLOSION

FLASH POINT	None	LOWER EXPLOSIVE LIMIT	None
AUTO IGNITION TEMPERATURE	Not combustible	UPPER EXPLOSIVE LIMIT	None
FLAMMABLE LIMITS	Not applicable	SPECIAL FIRE FIGHTING PROCEDURES	None
EXTINGUISHING MEDIA	Not combustible	UNUSUAL FIRE AND EXPLOSION HAZARDS	None
HAZARDOUS COMBUSTION PRODUCTS	None		

8 STABILITY AND REACTIVITY DATA

STABILITY Product is stable Keep dry until used

CONDITIONS TO AVOID Unintentional contact with water Contact with water will result in hydration and produces (caustic) calcium hydroxide

INCOMPATIBILITY Wet portland cement is alkaline As such it is incompatible with acids ammonium salts and aluminum metal

HAZARDOUS DECOMPOSITION Will not occur

HAZARDOUS POLYMERIZATION Will not occur

9 PRECAUTIONS FOR HANDLING, STORAGE AND DISPOSAL

HANDLING AND STORAGE Keep dry until used Handle and store in a manner so that airborne dust does not exceed applicable exposure limits Use adequate ventilation and dust collection Use exposure control and personal protection methods as described in Section 10

SPILL Use dry clean up methods that do not disperse dust into the air or entry into surface water Material can be used if not contaminated Place in an appropriate container for disposal or use Avoid inhalation of dust and contact with skin and eyes Use exposure control and personal protection methods as described in Section 10

DISPOSAL Comply with all applicable local state and federal regulations for disposal of unusable or contaminated materials Dispose of packaging/containers according to local state and federal regulations

10 EXPOSURE CONTROLS/PERSONAL PROTECTION

RESPIRATORY PROTECTION	Use local exhaust or general dilution ventilation to control dust levels below applicable exposure limits Minimize dispersal of dust into the air If local or general ventilation is not adequate to control dust levels below applicable exposure limits or when dust causes irritation or discomfort use MSHA/NIOSH approved respirators
EYE PROTECTION	Wear safety glasses with side shields or goggles to avoid contact with the eyes In extremely dusty environments and unpredictable environments wear tight fitting unvented or indirectly vented goggles to avoid eye irritation or injury Contact lenses should not be worn when handling cement or cement containing products
SKIN PROTECTION	Wear impervious abrasion and alkali resistant gloves boots long sleeved shirt long pants or other protective clothing to prevent skin contact Promptly remove clothing dusty with dry portland cement or clothing dampened with moisture mixed with portland cement, and launder before re use If contact occurs wash areas contacted by material with pH neutral soap and water

11 TRANSPORTATION DATA

Portland cement is not hazardous under U S DOT regulations

12 TOXICOLOGICAL AND ECOLOGICAL INFORMATION

For a description of available more detailed toxicological and ecological information contact Lehigh Cement Company

13 OTHER REGULATORY INFORMATION

Status under US OSHA Hazard Communication Rule 29 CFR 1910 1200	Portland cement is considered a hazardous chemical under this regulation and should be included in the employer s hazard communication program
Status under CERCLA/Superfund 40 CFR 117 and 302	Not listed
Hazard Category under SARA (Title III) Sections 311 and 312	Portland cement qualifies as a hazardous substance with delayed health effects
Status under SARA (Title III) Section 313	Maybe subject to reporting requirements under Section 313 Contact sales office for further information
Status under TSCA (as of May 1997)	Some substances in portland cement are on the TSCA inventory list
Status under the Federal Hazardous Substances Act	Portland cement is a hazardous substance subject to statutes promulgated under the subject act

Status under California Propo _ ٢١ 65	This product contains crystall ـ ilica a substance known to the State of California to cause cancer This product also may contain trace amounts of heavy metals known to the State of California to cause cancer birth defects or other reproductive harm

14 OTHER INFORMATION

This MSDS provides information on various types of portland cement products A particular product s composition may vary from sample to sample The information provided herein is believed by Lehigh Cement Company to be accurate at the time of preparation or prepared from sources believed to be reliable Health and safety precautions in this data sheet may not be adequate for all individuals or situations Users have the responsibility to comply with all laws and procedures applicable to the safe handling and use of the product to determine the suitability of the product for its intended use and to understand possible hazards associated with mixing portland cement with other materials This product neither contains nor is directly manufactured with any controlled ozone depleting substances Class I and II SELLER MAKES NO WARRANTY EXPRESS OR IMPLIED CONCERNING THE PRODUCT OR THE MERCHANTABILITY OR FITNESS THEREOF FOR ANY PURPOSE OR CONCERNING THE ACCURACY OF ANY INFORMATION PROVIDED BY LEHIGH CEMENT COMPANY

ABBREVIATIONS

ACGIH	American Conference of Governmental Industrial Hygienists
ASTM	American Society for Testing and Materials
CAS	Chemical Abstract Service
CERCLA	Comprehensive Environmental Response Compensation and Liability Act
CFR	Code of Federal Regulations
ft^3	Cubic foot
IARC	International Agency for Research on Cancer
m^3	Cubic meter
mg	Milligram
MSHA	Mine Safety and Health Administration
NIOSH	National Institute for Occupational Safety and Health
NTP	National Toxicology Program
OSHA	Occupational Safety and Health Administration
PEL	Permissible Exposure Limit
REL	Recommended Exposure Limit
SARA	Superfund Amendments and Reauthorization Act
TLV	Threshold Limit Value
TSCA	Toxic Substance Control Act
TWA	Time Weighted Average

Separation Technologies LLC
A Titan America Business

MATERIAL SAFETY DATA SHEET

For

Coal Fly Ash

May be used to comply with OSHA s Hazard

Communication Standard 29 CFR 1910 1200

Standard must be consulted for specific requirements

ProAsh®

Date Updated January 26th 2012

Section I Identity Information

Subject Bituminous Coal Class F Fly Ash
Trade name ProAsh®

Manufacturer
Separation Technologies LLC
188 Summerfield Court
Suite 101
Roanoke VA 24019

Telephone Number for Information
888-477-6274

SECTION II HAZARDOUS INGREDIENTS/IDENTITY INFORMATION

Analysis	CAS Number	Wt /	OSHA PEL (mg/m3)
Glassy Aluminum silicates	N/A	60 90%	15
Crystalline Aluminum silicates	Various	10 40%	15
Crystalline Silica	14808-60 7	1 3%	0 1
Lime (CaO)	1305 78-8	0 8 1 4/	5
Iron Oxides	Various	1 – 10/	10
Sulfur Trioxide (SO3)	7446 11 9	0 1 0 3/	–
Devolatilized Carbon Char	7440-44-0	1 5/	15

Note Fly ash is a byproduct from the combustion of coal Fly ash consists of complex combinations of amorphous (glassy) and crystalline phases Concentrations are approximate and may vary with coal source and boiler operating conditions Chemical analysis of fly ash also indicates the presence of trace amounts of metals such as Arsenic (As) Barium (Ba) Cadmium (Cd) Chromium (Cr) Lead (Pb) Mercury (Hg) and Selenium (Se) found to be hazardous or toxic in some chemical forms
The International Agency for Research on Cancer (IARC) has classified Crystalline Silica as a probable human carcinogen and Inorganic Arsenic as a human carcinogen

SECTION III PHYSICAL AND CHEMICAL CHARACTERISTICS

Appearance and Odor Fine grained gray powder No Odor

Boiling Point NOT APPLICABLE **Evaporation Rate** NOT APPLICABLE

Vapor Pressure NOT APPLICABLE **Melting Point** NOT APPLICABLE

Vapor Density NOT APPLICABLE **Solubility in water** Insoluble

Specific Gravity 2 0 to 3 0 (ASTM D854)

MATERIAL SAFETY DATA SHEET
for Coal Fly Ash

SECTION IV FIRE AND EXPLOSION HAZARD DATA

Flammability Limits NOT APPLICABLE

Fire and Explosion Hazard None

Fire Fighting Procedures Coal ash is the final product of combustion therefore unusual hazards are not expected in a fire

Flash Point NOT APPLICABLE

SECTION V REACTIVITY DATA

Stability Stable will not polymerize Stable under normal conditions of storage and handling

Conditions to avoid None

Incompatibility None

Hazardous Decomposition or By Products None Reported

SECTION VI HEALTH HAZARD INFORMATION

Exposure Route
- Inhalation
- Skin Contact
- Eye Contact

Ingestion No information on the short term effects from ingestion in humans available No observed effects in mice that ingest up to 1 % coal fly ash in drinking water (Roy et al 1981)

Mutations No information on mutagenicity in humans was found

Birth Defects and Effects on Reproduction No information on reproductive effects in humans was found

Other Health Effects Inhaled crystalline silica may cause pulmonary damage resulting in silicosis Silicosis is defined as a degenerative fibrotic lung disease It has been determined that the pulmonary defense system of mice was significantly affected by coal fly ash (Aranyi and Bradof 1981)

Note The International Agency for Research on Cancer (IARC) has classified crystalline silica as a probable human carcinogen

Medical Conditions No information was reported on medical conditions that may be aggravated by exposure to coal fly ash However emphysema and bronchitis frequently occur in cases of silicosis (Merchant et al 1981)

Emergency and First Aid Procedures

Inhalation Move person to fresh air Clear nasal passage and discourage affected individual from sniffing If person is not breathing contact emergency medical services and initiate basic life support

Skin Brush away ash particles To avoid possible irritation wash contaminated skin immediately with soap and water Remove any contaminated clothing and rewash skin if necessary If skin irritation results obtain medical attention

Eyes Immediately flush the eyes for at least 15 minutes at an eyewash station Use an appropriate flush solution or water while holding the eyelids open Do not rub Seek medical attention as soon as possible

MATERIAL SAFETY DATA SHEET
for Coal Fly Ash

SECTION VIII PRECAUTIONS FOR SAFE HANDLING AND USE

Personal Protection Employees handling fly ash should wear gloves goggles NIOSH respiratory protection and disposable coveralls

Storage and Handling When storing coal fly ash in ash ponds treat surface to avoid wind erosion of ash particles When storing coal fly ash in landfills the ash should be wetted and covered to avoid wind erosion of ash particles Open trucks utilized in ash disposal should be properly covered and should be wetted

Special Precautions and Control Measures Employees handling fly ash should observe proper personal hygiene wash hands remove coveralls before eating smoking applying cosmetics or using toilet facilities Local exhaust systems should be used whenever possible Other practices such as wetting should be utilized to control dust Compressed air should not be used

SECTION IX SPILL OR LEAK PROCEDURES

Spills/Releases Fly ash should be placed in suitable containers and covered Fly ash should be wetted where practical to control dust Fly ash is not considered a hazardous waste under EPA s Resource Conservation and Recovery Act (RCRA) Coal fly ash may be disposed of by adding to cement mixtures asphalt additives and as agricultural soil modifiers (Roy et al 1981)

References

Aranyi C and J Bradof 1981 Effect of Conventional and Advanced Coal Conversion By Products on the Pulmonary System EPA 600/1 81 038 April

Giere R Carleton L E and Lumkin G R Micro- and Nanochemistry of fly ash from a coal fired power plant. American Mineralogist Vol 88 pp 1853 – 1865 2003

IARC 1987 IARC Monographs on the Evaluation of the Carcinogenic Risk of Chemicals to Humans International Agency for Research on Cancer Vol 42 Lyon France

Merchant J A B A Boehlecke G Taylor (eds) 1986 Occupational Respiratory Diseases U S Department of Health and Human Services National Institute for Occupational Safety and Health Publication No 86 102

Morris S C and L D Hamilton 1984 Health and Environmental Effects of Coal Fired Electric Power Plants Prepared for the International Congress on Environmental Impacts on Coal Fired Power Plants Brindisi Italy p 42

Occupational Safety and Health Administration 1995/1996 Air Contaminants Permissible Exposure Limits Title 29 Code of Federal Regulations 1910 1000 U S Department of Labor Occupational Safety and Health Administration

Raabe O G W S Tyler J A Last et al 1982 Studies of the Chronic Inhalation of Coal Fly Ash by Rats Ann Occup Hyg 26(1-4) 189 211

Roy W R R G Thiery R M Schuller J J Suloway 1981 Coal Fly Ash A Review of the Literature and Proposed Classification System with Emphasis on Environmental Impacts Environmental Geology Notes 96 Illinois State Geological Survey 69 p

Wei C I M R Culbertson M Shifrine L S Rosenblatt C E Chrisp 1982 Comparative Studies on *In Vivo* Carcinogenesis in Rats and In Vivo Mutagenesis of Mutagenic Coal Fly Ash J of Toxicology and Environ Health 10 587-600

Safety Data Sheet

Material Name Fuel Oil No 2

SDS No 0088
US GHS

Synonyms #2 Heating Oil 2 Oil Off road Diesel Fuel

*** Section 1 - Product and Company Identification ***

Manufacturer Information

Hess Corporation
1 Hess Plaza
Woodbridge NJ 07095-0961

Phone 732 750-6000 Corporate EHS
Emergency # 800-424 9300 CHEMTREC
www hess com (Environment Health Safety Internet Website)

*** Section 2 - Hazards Identification ***

GHS Classification

Flammable Liquids Category 3
Acute Toxicity Inhalation Category 4
Skin Corrosion/Irritation – Category 2
Eye Damage/Irritation – Category 2B
Carcinogenicity Category 2
Specific Target Organ Toxicity (Single Exposure) – Category 3 (respiratory irritation narcosis)
Aspiration Hazard – Category 1
Hazardous to the Aquatic Environment Acute Hazard – Category 3

GHS LABEL ELEMENTS

Symbol(s)

Signal Word

DANGER

Hazard Statements

Flammable liquid and vapor
Harmful if inhaled
Causes skin irritation
Causes eye irritation
Suspected of causing cancer
Suspected of causing genetic defects
May cause respiratory irritation
May cause drowsiness or dizziness
May be fatal if swallowed and enters airways
Harmful to aquatic life

Precautionary Statements

Prevention

Keep away from heat/sparks/open flames/hot surfaces No smoking

Keep container tightly closed
Ground/bond container and receiving equipment
Use explosion proof electrical/ventilating/lighting/equipment
Use only non sparking tools
Take precautionary measures against static discharge
Wear protective gloves/protective clothing/eye protection/face protection
Avoid breathing fume/mist/vapors/spray
Use only outdoors or in a well ventilated area
Wash hands and forearms thoroughly after handling
Obtain special instructions before use
Do not handle until all safety precautions have been read and understood
Avoid release to the environment

Response
In case of fire Use water spray fog or foam
If on skin (or hair) Wash with plenty of soap and water Take off immediately all contaminated clothing and wash it before reuse If skin irritation occurs get medical advice/attention
If inhaled Remove person to fresh air and keep comfortable for breathing Call a poison center or doctor if you feel unwell
If in eyes Rinse cautiously with water for several minutes Remove contact lenses if present and easy to do Continue rinsing If eye irritation persists Get medical advice/attention
If exposed or concerned Get medical advice/attention
If swallowed Immediately all a poison center or doctor/physician if you feel unwell Do NOT induce vomiting

Storage
Store in a well ventilated place
Keep cool Store locked up
Keep container tightly closed

Disposal
Dispose of contents/container in accordance with local/regional/national/international regulations

*** Section 3 - Composition / Information on Ingredients ***

CAS #	Component	Percent
68476 30-2	Fuel oil No 2	100
91 20 3	Naphthalene	<0 1

A complex combination of hydrocarbons with carbon numbers in the range C9 and higher produced from the distillation of petroleum crude oil

*** Section 4 - First Aid Measures ***

First Aid Eyes
In case of contact with eyes immediately flush with clean low pressure water for at least 15 min Hold eyelids open to ensure adequate flushing Seek medical attention

First Aid Skin

Remove contaminated clothing Wash contaminated areas thoroughly with soap and water or with waterless hand cleanser Obtain medical attention if irritation or redness develops

First Aid Ingestion

DO NOT INDUCE VOMITING Do not give liquids Obtain immediate medical attention If spontaneous vomiting occurs lean victim forward to reduce the risk of aspiration Monitor for breathing difficulties Small amounts of material which enter the mouth should be rinsed out until the taste is dissipated

First Aid Inhalation

Remove person to fresh air If person is not breathing provide artificial respiration If necessary provide additional oxygen once breathing is restored if trained to do so Seek medical attention immediately

* * * Section 5 - Fire Fighting Measures * * *

General Fire Hazards

See Section 9 for Flammability Properties

Vapors may be ignited rapidly when exposed to heat spark open flame or other source of ignition When mixed with air and exposed to an ignition source flammable vapors can burn in the open or explode in confined spaces Being heavier than air vapors may travel long distances to an ignition source and flash back Runoff to sewer may cause fire or explosion hazard

Hazardous Combustion Products

Carbon monoxide carbon dioxide and non-combusted hydrocarbons (smoke)

Extinguishing Media

SMALL FIRES Any extinguisher suitable for Class B fires dry chemical CO2 water spray fire fighting foam or gaseous extinguishing agent

LARGE FIRES Water spray fog or fire fighting foam Water may be ineffective for fighting the fire but may be used to cool fire-exposed containers

Unsuitable Extinguishing Media

None

Fire Fighting Equipment/Instructions

Small fires in the incipient (beginning) stage may typically be extinguished using handheld portable fire extinguishers and other fire fighting equipment Firefighting activities that may result in potential exposure to high heat smoke or toxic by products of combustion should require NIOSH/MSHA approved pressure demand self contained breathing apparatus with full facepiece and full protective clothing Isolate area around container involved in fire Cool tanks shells and containers exposed to fire and excessive heat with water For massive fires the use of unmanned hose holders or monitor nozzles may be advantageous to further minimize personnel exposure Major fires may require withdrawal allowing the tank to burn Large storage tank fires typically require specially trained personnel and equipment to extinguish the fire often including the need for properly applied fire fighting foam

* * * Section 6 - Accidental Release Measures * * *

Recovery and Neutralization

Carefully contain and stop the source of the spill if safe to do so

Materials and Methods for Clean Up

Take up with sand or other oil absorbing materials Carefully shovel scoop or sweep up into a waste container for reclamation or disposal

Emergency Measures

Evacuate nonessential personnel and remove or secure all ignition sources Consider wind direction stay upwind and uphill if possible Evaluate the direction of product travel diking sewers etc to confirm spill areas Spills may infiltrate subsurface soil and groundwater professional assistance may be necessary to determine the extent of subsurface impact

Personal Precautions and Protective Equipment

Response and clean up crews must be properly trained and must utilize proper protective equipment (see Section 8)

Environmental Precautions

Protect bodies of water by diking absorbents or absorbent boom if possible Do not flush down sewer or drainage systems unless system is designed and permitted to handle such material The use of fire fighting foam may be useful in certain situations to reduce vapors The proper use of water spray may effectively disperse product vapors or the liquid itself preventing contact with ignition sources or areas/equipment that require protection

Prevention of Secondary Hazards

None

* * * Section 7 - Handling and Storage * * *

Handling Procedures

Handle as a combustible liquid Keep away from heat sparks excessive temperatures and open flame! No smoking or open flame in storage use or handling areas Bond and ground containers during product transfer to reduce the possibility of static initiated fire or explosion

Special slow load procedures for switch loading must be followed to avoid the static ignition hazard that can exist when this product is loaded into tanks previously containing low flash point products (such as gasoline) see API Publication 2003 Protection Against Ignitions Arising Out Of Static Lightning and Stray Currents

Storage Procedures

Keep containers closed and clearly labeled Use approved vented storage containers Empty product containers or vessels may contain explosive vapors Do not pressurize cut heat weld or expose such containers to sources of ignition

Store in a well ventilated area This storage area should comply with NFPA 30 Flammable and Combustible Liquid Code Avoid storage near incompatible materials The cleaning of tanks previously containing this product should follow API Recommended Practice (RP) 2013 Cleaning Mobile Tanks In Flammable and Combustible Liquid Service and API RP 2015 Cleaning Petroleum Storage Tanks

Incompatibilities

Keep away from strong oxidizers Fluorel ®

* * * Section 8 - Exposure Controls / Personal Protection * * *

Component Exposure Limits

Fuel oil No 2 (68476-30 2)

ACGIH 0 2 mg/m3 TWA (inhalable fraction and vapor as total hydrocarbons listed under Diesel fuel)
Skin potential significant contribution to overall exposure by the cutaneous route (listed under Diesel fuel)

Naphthalene (91 20-3)

ACGIH	10 ppm TWA
	15 ppm STEL
	Skin potential significant contribution to overall exposure by the cutaneous route
OSHA	10 ppm TWA 50 mg/m3 TWA
NIOSH	10 ppm TWA 50 mg/m3 TWA
	15 ppm STEL 75 mg/m3 STEL

Engineering Measures

Use adequate ventilation to keep vapor concentrations of this product below occupational exposure and flammability limits particularly in confined spaces

Personal Protective Equipment Respiratory

A NIOSH/MSHA approved air purifying respirator with organic vapor cartridges or canister may be permissible under certain circumstances where airborne concentrations are or may be expected to exceed exposure limits or for odor or irritation Protection provided by air purifying respirators is limited

Use a positive pressure air supplied respirator if there is a potential for uncontrolled release exposure levels are not known in oxygen deficient atmospheres or any other circumstance where an air purifying respirator may not provide adequate protection

Personal Protective Equipment Hands

Gloves constructed of nitrile neoprene or PVC are recommended

Personal Protective Equipment Eyes

Safety glasses or goggles are recommended where there is a possibility of splashing or spraying

Personal Protective Equipment Skin and Body

Chemical protective clothing such as of E I DuPont TyChem® Saranex® or equivalent recommended based on degree of exposure Note The resistance of specific material may vary from product to product as well as with degree of exposure Consult manufacturer specifications for further information

* * * Section 9 - Physical & Chemical Properties * * *

Appearance	Red or reddish/orange colored (dyed)	**Odor**	Mild petroleum distillate odor
Physical State	Liquid	**pH**	ND
Vapor Pressure	0 009 psia @ 70 F (21 C)	**Vapor Density**	>1 0
Boiling Point	340 to 700 F (171 to 371 C)	**Melting Point**	ND
Solubility (H2O)	Negligible	**Specific Gravity**	AP 0 823 0871
Evaporation Rate	Slow varies with conditions	**VOC**	ND
Octanol/H2O Coeff	ND	**Flash Point**	100 F (38 C) minimum
Flash Point Method	PMCC	**Upper Flammability Limit (UFL)**	7 5
Lower Flammability Limit (LFL)	0 6	**Burning Rate**	ND
Auto Ignition	494 F (257 C)		

* * * Section 10 - Chemical Stability & Reactivity Information * * *

Chemical Stability

This is a stable material

Hazardous Reaction Potential

Will not occur

Conditions to Avoid

Avoid high temperatures open flames sparks welding smoking and other ignition sources

Incompatible Products

Keep away from strong oxidizers Fluorel ®

Hazardous Decomposition Products

Carbon monoxide carbon dioxide and non-combusted hydrocarbons (smoke)

* * * Section 11 - Toxicological Information * * *

Acute Toxicity

A General Product Information

Harmful if swallowed

B Component Analysis LD50/LC50

Fuel oil No 2 (68476-30 2)

Oral LD50 Rat 12 g/kg Dermal LD50 Rabbit 4720 µL/kg Dermal LD50 Rabbit >2000 mg/kg Inhalation LC50 Rat 4 6 mg/L 4 h

Naphthalene (91 20 3)

Inhalation LC50 Rat >340 mg/m3 1 h Oral LD50 Rat 490 mg/kg Dermal LD50 Rat >2500 mg/kg Dermal LD50 Rabbit >20 g/kg

Product Mixture

Oral LD50 Rat 14 5 ml/kg Dermal LD50 Rabbit >5 mL/kg Guinea Pig Sensitization negative Primary dermal irritation moderately irritating (Draize mean irritation score 3 98 rabbits) Draize eye irritation mildly irritating (Draize score 48 hours unwashed 2 0 rabbits)

Potential Health Effects Skin Corrosion Property/Stimulativeness

Practically non toxic if absorbed following acute (single) exposure May cause skin irritation with prolonged or repeated contact Liquid may be absorbed through the skin in toxic amounts if large areas of skin are repeatedly exposed

Potential Health Effects Eye Critical Damage/ Stimulativeness

Contact with eyes may cause mild irritation

Potential Health Effects Ingestion

Ingestion may cause gastrointestinal disturbances including irritation nausea vomiting and diarrhea and central nervous system (brain) effects similar to alcohol intoxication In severe cases tremors convulsions loss of consciousness coma respiratory arrest and death may occur

Potential Health Effects Inhalation

Excessive exposure may cause irritations to the nose throat lungs and respiratory tract Central nervous system (brain) effects may include headache dizziness loss of balance and coordination unconsciousness coma respiratory failure and death

WARNING the burning of any hydrocarbon as a fuel in an area without adequate ventilation may result in hazardous levels of combustion products including carbon monoxide and inadequate oxygen levels which may cause unconsciousness suffocation and death

Respiratory Organs Sensitization/Skin Sensitization

This product is not reported to have any skin sensitization effects

Generative Cell Mutagenicity

This product is not reported to have any mutagenic effects Material of similar composition has been positive in a mutagenicity study

Carcinogenicity

A General Product Information

Suspected of causing cancer

Dermal carcinogenicity positive mice
Studies have shown that similar products produce skin tumors in laboratory animals following repeated applications without washing or removal The significance of this finding to human exposure has not been determined Other studies with active skin carcinogens have shown that washing the animal s skin with soap and water between applications reduced tumor formation

This product is similar to Diesel Fuel IARC classifies whole diesel fuel exhaust particulates as probably carcinogenic to humans (Group 2A) and NIOSH regards it as a potential cause of occupational lung cancer based on animal studies and limited evidence in humans

B Component Carcinogenicity

Fuel oil No 2 (68476-30 2)

ACGIH A3 Confirmed Animal Carcinogen with Unknown Relevance to Humans (listed under Diesel fuel)

Naphthalene (91 20-3)

ACGIH A4 Not Classifiable as a Human Carcinogen
NTP Reasonably Anticipated To Be A Human Carcinogen (Possible Select Carcinogen)
IARC Monograph 82 [2002] (Group 2B (possibly carcinogenic to humans))

Reproductive Toxicity

This product is not reported to have any reproductive toxicity effects

Specified Target Organ General Toxicity Single Exposure

This product is not reported to have any specific target organ general toxicity single exposure effects

Specified Target Organ General Toxicity Repeated Exposure

This product is not reported to have any specific target organ general toxicity repeat exposure effects

Aspiration Respiratory Organs Hazard

The major health threat of ingestion occurs from the danger of aspiration (breathing) of liquid drops into the lungs particularly from vomiting Aspiration may result in chemical pneumonia (fluid in the lungs) severe lung damage respiratory failure and even death

*** Section 12 - Ecological Information ***

Ecotoxicity

A General Product Information

Very toxic to aquatic life with long lasting effects Keep out of sewers drainage areas and waterways Report spills and releases as applicable under Federal and State regulations

B Component Analysis Ecotoxicity Aquatic Toxicity

Fuel oil No 2 (68476-30 2)

Test & Species		Conditions
96 Hr LC50 Pimephales promelas	35 mg/L [flow through]	

Naphthalene (91 20 3)

Test & Species		Conditions
96 Hr LC50 Pimephales promelas	5 74-6 44 mg/L [flow through]	
96 Hr LC50 Oncorhynchus mykiss	1 6 mg/L [flow through]	
96 Hr LC50 Oncorhynchus mykiss	0 91 2 82 mg/L [static]	
96 Hr LC50 Pimephales promelas	1 99 mg/L [static]	
96 Hr LC50 Lepomis macrochirus	31 0265 mg/L [static]	
72 Hr EC50 Skeletonema costatum	0 4 mg/L	
48 Hr LC50 Daphnia magna	2 16 mg/L	
48 Hr EC50 Daphnia magna	1 96 mg/L [Flow through]	
48 Hr EC50 Daphnia magna	1 09 3 4 mg/L [Static]	

Persistence/Degradability

No information available

Bioaccumulation

No information available

Mobility in Soil

No information available

*** Section 13 - Disposal Considerations ***

Waste Disposal Instructions

See Section 7 for Handling Procedures See Section 8 for Personal Protective Equipment recommendations

Disposal of Contaminated Containers or Packaging

Dispose of contents/container in accordance with local/regional/national/international regulations

*** Section 14 - Transportation Information ***

DOT Information

Shipping Name Fuel Oil No 2

UN # 1202 **Hazard Class** 3 **Packing Group** III

Placard

*** Section 15 - Regulatory Information ***

Regulatory Information

Component Analysis

This material contains one or more of the following chemicals required to be identified under SARA Section 302 (40 CFR 355 Appendix A) SARA Section 313 (40 CFR 372 65) and/or CERCLA (40 CFR 302 4)

Naphthalene (91 20 3)

SARA 313 0 1 % de minimis concentration
CERCLA 100 lb final RQ 45 4 kg final RQ

SARA Section 311/312 – Hazard Classes

Acute Health	Chronic Health	Fire	Sudden Release of Pressure	Reactive
X	X	X	–	–

SARA SECTION 313 SUPPLIER NOTIFICATION

This product may contain listed chemicals below the de minimis levels which therefore are not subject to the supplier notification requirements of Section 313 of the Emergency Planning and Community Right To Know Act (EPCRA) of 1986 and of 40 CFR 372 If you may be required to report releases of chemicals listed in 40 CFR 372 28 you may contact Hess Corporate Safety if you require additional information regarding this product

State Regulations

Component Analysis State

The following components appear on one or more of the following state hazardous substances lists

Component	CAS	CA	MA	MN	NJ	PA	RI
Naphthalene	91 20 3	Yes	Yes	Yes	Yes	Yes	No

The following statement(s) are provided under the California Safe Drinking Water and Toxic Enforcement Act of 1986 (Proposition 65)

WARNING! This product contains a chemical known to the state of California to cause cancer

Component Analysis WHMIS IDL

No components are listed in the WHMIS IDL

Additional Regulatory Information

Component Analysis Inventory

Component	CAS #	TSCA	CAN	EEC
Fuel oil No 2	68476 30 2	Yes	DSL	EINECS
Naphthalene	91 20 3	Yes	DSL	EINECS

*** Section 16 - Other Information ***

NFPA® Hazard Rating

Health	1
Fire	2
Reactivity	0

HMIS® Hazard Rating

Health	1*	Slight
Fire	2	Moderate
Physical	0	Minimal
		*Chronic

Abbreviations

AP = Approximately < = Less than > = Greater than N/A = Not Applicable N/D = Not Determined ppm = parts per million

Key/Legend

EPA = Environmental Protection Agency TSCA = Toxic Substance Control Act ACGIH = American Conference of Governmental Industrial Hygienists API = American Petroleum Institute (202) 682 8000 IARC = International Agency for Research on Cancer MSHA = Mine Safety and Health Administration NIOSH = National Institute for Occupational Safety and Health NTP = National Toxicology Program OSHA = Occupational Safety and Health Administration NJTSR = New Jersey Trade Secret Registry

Literature References

None

Other Information

Information presented herein has been compiled from sources considered to be dependable and is accurate and reliable to the best of our knowledge and belief but is not guaranteed to be so Since conditions of use are beyond our control we make no warranties expressed or implied except those that may be contained in our written contract of sale or acknowledgment

Vendor assumes no responsibility for injury to vendee or third persons proximately caused by the material if reasonable safety procedures are not adhered to as stipulated in the data sheet Additionally vendor assumes no responsibility for injury to vendee or third persons proximately caused by abnormal use of the material even if reasonable safety procedures are followed Furthermore vendee assumes the risk in their use of the material

End of Sheet

The HILL and GRIFFITH Company
Quality and Service Since 1836

Corporate Office
1085 Summer Street
Cincinnati Ohio 45204
1 800 543-0425 • 513 921 1075
Fax 513 921 9180

GRIFCOTE® FR-50-VOC

LOW VOLATILE FORM RELEASE

GRIFCOTE® FR-50-VOC is a proprietary blend of organic materials that promote clean and easy separation from all types of forms while deterring build up and sticking The reaction of GRIFCOTE® **FR-50-VOC** creates a metallic soap that reduces bonding/adhesion while promoting quick and clean stripping The reactive organic compounds provide maximum performance to precast concrete concrete forming prestressed concrete, etc

GRIFCOTE® FR-50-VOC is non-staining and works well with white gray or colored concrete Bug holes are minimized due to the metallic soap-minimizing adherence of air to the form walls The release characteristic due to the formation of the metallic soap makes the cleaning process more effective

Application

Form surfaces should be dry and free from concrete build up before **GRIFCOTE® FR-50-VOC** is applied As **GRIFCOTE® FR-50-VOC** is ready to use, it is not necessary to mix or dilute prior to using Application may be done using conventional or airless spraying equipment, rollers, mops wipe-on or any other conventional method of applying form release agents Over application should be avoided to prevent runs or puddles, which will create voids in the finished concrete surface

*Application rates will vary depending on forms and application methods **GRIFCOTE® FR-50-VOC** should be applied to achieve a maximum 5-mil (005 in) thickness to help avoid the possibility of surface voids On new wood forms application rates should be 300 to 400 square feet per gallon On seasoned wood forms, it should be applied at the rate of 500 to 700 square feet per gallon On conventional plywood forms, it should be applied at a rate of 800 to 1000 square feet per gallon On high density plywood forms at a rate of 1100 to 1300 square feet per gallon Metal forms (steel and aluminum) rate of application will be up to 3000 square feet per gallon with 2000 square feet per gallon being typical

Technical Data

Color	Clear to amber liquid with petroleum odor
Flash Point	260 F minimum (C O C)
Viscosity	7 2 CPS @ 20 C (Brookfield)
Density	6 9 lbs /gal
Specific Gravity	0 83 g/ml
Water Solubility	NIL
Application Rate	300 ft^2 to 3000 ft^2 per gallon depending on method of application and type of form being used See * above

A Material Safety Data Sheet should be reviewed prior to application as relates to safety equipment needed

Volatile Organic Compound Data
Effective September 13 1999 the United States EPA has issued VOC limitations on concrete form release agents Reference to these regulations can be found in the Federal Register Vol 63 no 176 Friday, September 11, 1998 under 40 CFR-59, [AD FRL 6149-7], RIN 2060 AE55, National Volatile Organic Compound Emission Standards for Architectural Coatings pages 44848 48887

GRIFCOTE®FR-50-VOC is in compliance with these regulations and contains less than 3 8 lbs per gallon/450 grams per liter of VOC compounds based on EPA Method 24

Storage
All material containers should be kept tightly closed to avoid outside contamination Drums and pails should be kept in a vertical position

Material should be stored in a protected area

Do not store material in unlined metal containers (ductile malleable or gray iron, steel, aluminum brass or bronzes) Material should be stored in plastic containers lined drums or stainless steel containers

MATERIAL SAFETY DATA SHEET

SIKA AEA-14

HMIS

HEALTH	1
	0
REACTIVITY	0
PERSONAL PROTECTION	D

1 Product And Company Identification

Supplier
Sika Corporation
201 Polito Ave
Lyndhurst NJ 07071

Company Contact EHS Department
Telephone Number 201 933 8800
FAX Number 201 933 9379
Web Site www sikausa com

Manufacturer
Sika Corporation
201 Polito Ave
Lyndhurst NJ 07071

Company Contact EHS Department
Telephone Number 201 933 8800
FAX Number 201 933 9379
Web Site www sikausa com

Supplier Emergency Contacts & Phone Number
CHEMTREC 800-424 9300
INTERNATIONAL 703-527-3887

Manufacturer Emergency Contacts & Phone Number
CHEMTREC 800-424 9300
INTERNATIONAL 703-527-3887

Issue Date 03/22/2006

Product Name SIKA AEA 14
CAS Number Not Established
Chemical Family Inorganic Salt of Processed Oil
MSDS Number 3862
Product Code P10654A

2 Composition/Information On Ingredients

Ingredient Name	CAS Number		Percent Of Total Weight
Aqueous Solution	Mixture		

3 Hazards Identification

Eye Hazards
May cause eye irritation

Skin Hazards
May cause skin irritation

Ingestion Hazards
May be harmful if swallowed

Inhalation Hazards
May cause respiratory tract irritation

4 First Aid Measures

Eye
In case of contact hold eyelids apart and immediately flush eyes with plenty of tepid water for at least 15 minutes Get medical attention immediately if irritation develops and persists

Skin
In case of contact immediately flush skin with soap and plenty of tepid water for at least 15 minutes Get medical attention immediately if irritation (redness rash blistering) develops and persists

Ingestion
If swallowed do not induce vomiting unless directed to do so by medical personnel

Inhalation
Remove to fresh air If not breathing give artificial respiration seek medical attention

5 Fire Fighting Measures

Fire And Explosion Hazards
None Known

Extinguishing Media
Aqueous solution will not support combustion Use the appropriate extinguishing media for the surrounding fire

Fire Fighting Instructions
In the event of a fire firefighters should wear full protective clothing and NIOSH approved self-contained breathing apparatus with a full facepiece operated in the pressure demand or other positive pressure mode

6 Accidental Release Measures

Avoid release to the environment Use appropriate Personal Protective Equipment (PPE) Contain spill and collect with absorbent material and transfer into suitable containers Do not flush to sewer or allow to enter waterways Ventilate enclosed area

7 Handling And Storage

Handling And Storage Precautions
Keep out of reach of children Store in a cool dry well ventilated area Keep containers tightly closed

Work/Hygienic Practices
Wash thoroughly with soap and water after handling

8 Exposure Controls/Personal Protection

Engineering Controls
Use with adequate general and local exhaust ventilation Refer to the current edition of Industrial Ventilation A Manual of Recommended Practice published by the American Conference of Governmental Industrial Hygienists for information on the design installation use and maintenance of exhaust systems

Eye/Face Protection
Faceshield over safety glasses or goggles

Skin Protection
Chemical resistant gloves Lab coat or other work clothing to prevent skin exposure (Long sleeve shirt and long pants) Launder before reuse

Respiratory Protection
In case of inadequate ventilation use NIOSH approved respirator A respirator protection program that meets 29 CFR 1910 134 requirement must be followed whenever workplace conditions warrant a respirator's use

MATERIAL SAFETY DATA SHEET

SIKA AEA-14

9 Physical And Chemical Properties

Appearance
Dark brown liquid

Odor
Characteristic

Chemical Type Mixture
Melting Point N/AV F
Boiling Point N/AV F
Specific Gravity 1 01
Packing Density 8 51 lbs/gal
Vapor Pressure N/AV
Vapor Density >AIR
Solubility Complete
Evaporation Rate Slower Than Ether

10 Stability And Reactivity

Stability Stable
Hazardous Polymerization Will Not Occur

Conditions To Avoid (Stability)
None Known

Incompatible Materials
Strong acids or alkaline materials

Hazardous Decomposition Products
None Known

Conditions To Avoid (Polymerization)
None Known

11 Toxicological Information

No Data Available

12 Ecological Information

No Data Available

13 Disposal Considerations

Dispose in accordance with applicable federal state and local government regulations Waste generators must determine whether a discarded material is classified as a hazardous waste USEPA guidelines for the classification determination are listed in 40 CFR Parts 261 3 Additionally waste generators must consult state and local hazardous waste regulations to ensure complete and accurate classification

14 Transport Information

Proper Shipping Name
Not Regulated by US D O T

15 Regulatory Information

SARA Hazard Classes
Acute Health Hazard

MATERIAL SAFETY DATA SHEET

SIKA AEA-14

15 Regulatory Information Continued

SARA Section 313 Notification

This product does not contain any ingredients regulated under Section 313 of the Emergency Planning and Community Right To-Know Act of 1986 or 40 CFR 372

16 Other Information

HMIS Rating
Health 1
Fire 0
Reactivity 0
PPE D

Revision/Preparer Information
This MSDS Supercedes A Previous MSDS Dated 07/11/2005

Disclaimer

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SIKA CORPORATION

Material Safety Data Sheet

Plastiment

1 Product and company identification

Product name	Plastiment
Supplier	Sika Corporation Construction 201 Polito Avenue Lyndhurst NJ 07071 www sikaconstruction com
Telephone no	(201) 933 8800
Fax no	(201) 804 1076
In case of emergency	CHEMTREC 800-424 9300 INTERNATIONAL 703 527 3887
Manufacturer	Sika Corporation Operations 201 Polito Avenue Lyndhurst NJ 07071 www sikacorp com
Telephone no	(201) 933 8800
Validation date	**9 February 2010**
Print date	9 February 2010
Product type	Liquid

2 Composition/information on ingredients

Name	CAS number	%
Sodium salt of organic acid mixture	Mixture	10 30

There are no additional ingredients present which within the current knowledge of the supplier and in the concentrations applicable are classified as hazardous to health or the environment and hence require reporting in this section

3 Hazards identification

OSHA/HCS status	This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910 1200)
Potential acute health effects	
Inhalation	Slightly irritating to the respiratory system
Ingestion	No known significant effects or critical hazards
Skin	Slightly irritating to the skin May cause sensitization by skin contact
Eyes	Irritating to eyes

See toxicological information (section 11)

4 First aid measures

Eye contact	Check for and remove any contact lenses Get medical attention Immediately flush eyes with plenty of water for at least 15 minutes
Skin contact	Flush contaminated skin with plenty of water Remove contaminated clothing and shoes Wash contaminated clothing thoroughly with water before removing it or wear gloves Continue to rinse for at least 10 minutes Get medical attention In the event of any complaints or symptoms avoid further exposure Wash clothing before reuse
Inhalation	Move exposed person to fresh air If not breathing if breathing is irregular or if respiratory arrest occurs provide artificial respiration or oxygen by trained personnel It may be dangerous to the person providing aid to give mouth to mouth resuscitation Get medical attention if adverse health effects persist or are severe Maintain an open airway

4 First aid measures

Ingestion
Wash out mouth with water Move exposed person to fresh air If material has been swallowed and the exposed person is conscious give small quantities of water to drink Do not induce vomiting unless directed to do so by medical personnel Get medical attention if adverse health effects persist or are severe Never give anything by mouth to an unconscious person

Notes to physician
No specific treatment Treat symptomatically Contact poison treatment specialist immediately if large quantities have been ingested or inhaled

5 Fire-fighting measures

Flammability of the product
In a fire or if heated a pressure increase will occur and the container may burst

Extinguishing media

Suitable
Use an extinguishing agent suitable for the surrounding fire

Not suitable
None known

Special exposure hazards
Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire No action shall be taken involving any personal risk or without suitable training

Hazardous combustion products
Decomposition products may include the following materials
carbon dioxide
carbon monoxide
metal oxide/oxides

Special protective equipment for fire fighters
Fire fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face piece operated in positive pressure mode

6 Accidental release measures

Personal precautions
No action shall be taken involving any personal risk or without suitable training Evacuate surrounding areas Keep unnecessary and unprotected personnel from entering Do not touch or walk through spilled material Avoid breathing vapor or mist Provide adequate ventilation Wear appropriate respirator when ventilation is inadequate Put on appropriate personal protective equipment (see section 8)

Environmental precautions
Avoid dispersal of spilled material and runoff and contact with soil waterways drains and sewers Inform the relevant authorities if the product has caused environmental pollution (sewers waterways soil or air)

Large spill
Stop leak if without risk Move containers from spill area Approach release from upwind Prevent entry into sewers water courses basements or confined areas Wash spillages into an effluent treatment plant or proceed as follows Contain and collect spillage with non combustible absorbent material e g sand earth vermiculite or diatomaceous earth and place in container for disposal according to local regulations (see section 13) Dispose of via a licensed waste disposal contractor Contaminated absorbent material may pose the same hazard as the spilled product Note see section 1 for emergency contact information and section 13 for waste disposal

Small spill
Stop leak if without risk Move containers from spill area Dilute with water and mop up if water soluble or absorb with an inert dry material and place in an appropriate waste disposal container Dispose of via a licensed waste disposal contractor

7 Handling and storage

Handling
Put on appropriate personal protective equipment (see section 8) Eating drinking and smoking should be prohibited in areas where this material is handled stored and processed Workers should wash hands and face before eating drinking and smoking Persons with a history of skin sensitization problems should not be employed in any process in which this product is used Do not get in eyes or on skin or clothing Do not ingest Avoid breathing vapor or mist Use only with adequate ventilation Wear appropriate respirator when ventilation is inadequate Keep in the original container or an approved alternative made from a compatible material kept tightly closed when not in

7 Handling and storage

	use Empty containers retain product residue and can be hazardous Do not reuse container
Storage	Store in accordance with local regulations Store in original container protected from direct sunlight in a dry cool and well ventilated area away from incompatible materials (see section 10) and food and drink Keep container tightly closed and sealed until ready for use Containers that have been opened must be carefully resealed and kept upright to prevent leakage Do not store in unlabeled containers Use appropriate containment to avoid environmental contamination

8 Exposure controls/personal protection

Consult local authorities for acceptable exposure limits

Engineering measures	Use only with adequate ventilation If user operations generate dust fumes gas vapor or mist use process enclosures local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits
Hygiene measures	Wash hands forearms and face thoroughly after handling chemical products before eating smoking and using the lavatory and at the end of the working period Appropriate techniques should be used to remove potentially contaminated clothing Wash contaminated clothing before reusing Ensure that eyewash stations and safety showers are close to the workstation location
Personal protection	
Respiratory	Use a properly fitted air purifying or air fed respirator complying with an approved standard if a risk assessment indicates this is necessary Respirator selection must be based on known or anticipated exposure levels the hazards of the product and the safe working limits of the selected respirator
Hands	Chemical resistant impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary
Eyes	Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes mists or dusts
Skin	Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product

9 Physical and chemical properties

Flash point	Closed cup 104 4 C (219 9 F)
Color	Brown
Odor	Pungent
pH	6 5
Density	~1 185 g/cm^3

10 Stability and reactivity

Stability	The product is stable
Conditions to avoid	No specific data
Materials to avoid	No specific data
Hazardous decomposition products	Under normal conditions of storage and use hazardous decomposition products should not be produced
Hazardous polymerization	Under normal conditions of storage and use hazardous polymerization will not occur

11 Toxicological information

Potential chronic health effects

Chronic effects Once sensitized a severe allergic reaction may occur when subsequently exposed to very low levels

Acute toxicity

Conclusion/Summary Not available

12 Ecological information

Environmental effects No known significant effects or critical hazards

13 Disposal considerations

Waste disposal The generation of waste should be avoided or minimized wherever possible Empty containers or liners may retain some product residues This material and its container must be disposed of in a safe way Dispose of surplus and non recyclable products via a licensed waste disposal contractor Disposal of this product solutions and any by products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements Avoid dispersal of spilled material and runoff and contact with soil waterways drains and sewers

Disposal should be in accordance with applicable regional national and local laws and regulations

Refer to Section 7 HANDLING AND STORAGE and Section 8 EXPOSURE CONTROLS/PERSONAL PROTECTION for additional handling information and protection of employees

14 Transport information

Regulatory information	UN number	Proper shipping name	Classes	PG*	Additional information
DOT Classification	Not regulated				
TDG Classification	Not regulated				
ADR/RID Class	Not regulated				
IMDG Class	Not regulated				
IATA DGR Class	Not regulated				

PG Packing group

15 Regulatory information

U S Federal regulations **United States inventory (TSCA 8b)** All components are listed or exempted

SARA 302/304/311/312 extremely hazardous substances No products were found
SARA 302/304 emergency planning and notification No products were found
SARA 302/304/311/312 hazardous chemicals No products were found
SARA 311/312 MSDS distribution chemical inventory hazard identification No products were found

United States inventory (TSCA 8b) All components are listed or exempted

16 Other information

Hazardous Material
Information System (U S A.)

Health	2
Flammability	1
Physical hazards	0
Personal Protection Equipment	D

Caution HMIS® ratings are based on a 0-4 rating scale with 0 representing minimal hazards or risks and 4 representing significant hazards or risks Although HMIS® ratings are not required on MSDSs under 29 CFR 1910 1200 the preparer may choose to provide them HMIS® ratings are to be used with a fully implemented HMIS® program HMIS® is a registered mark of the National Paint & Coatings Association (NPCA) HMIS® materials may be purchased exclusively from J J Keller (800) 327 6868

The customer is responsible for determining the PPE code for this material

Date of printing	09 02 2010
Date of issue	09 02 2010
Date of previous issue	No previous validation
Version	1 01

☑ Indicates information that has changed from previously issued version

Notice to reader

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Material Safety Data Sheet

Sika Stabilizer 4R

1 Product and company identification

Product name	Sika Stabilizer 4R
Supplier	Sika Corporation Operations 201 Polito Avenue Lyndhurst NJ 07071 www sikacorp com
Telephone no	(201) 933 8800
Fax no	(201) 804 1076
In case of emergency	CHEMTREC 800-424 9300 INTERNATIONAL 703 527 3887
Manufacturer	Sika Coporation Operations 201 Polito Avenue Lyndhurst NJ 07071 www sikacorp com
Telephone no	(201) 903 8800
Validation date	**15 May 2008**
Print date	15 May 2008
Product type	Liquid

2 Hazards identification

OSHA/HCS status	While this material is not considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910 1200) this MSDS contains valuable information critical to the safe handling and proper use of the product This MSDS should be retained and available for employees and other users of this product
Potential acute health effects	
Inhalation	No known significant effects or critical hazards
Ingestion	No known significant effects or critical hazards
Skin	No known significant effects or critical hazards
Eyes	No known significant effects or critical hazards

See toxicological information (section 11)

3 Composition/information on ingredients

Name	CAS number	%
propylene glycol	57 55 6	3 7

There are no ingredients or additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable are classified as hazardous to health or the environment and hence require reporting in this section

4 First aid measures

Notes to physician	No specific treatment Treat symptomatically Contact poison treatment specialist immediately if large quantities have been ingested or inhaled

5 Fire-fighting measures

Flammability of the product	In a fire or if heated a pressure increase will occur and the container may burst
Extinguishing media	
Suitable	Use an extinguishing agent suitable for the surrounding fire
Not suitable	None known
Special exposure hazards	Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire No action shall be taken involving any personal risk or without suitable training
Hazardous combustion products	Decomposition products may include the following materials carbon oxides
Special protective equipment for fire fighters	Fire fighters should wear appropriate protective equipment and self contained breathing apparatus (SCBA) with a full face piece operated in positive pressure mode

6 Accidental release measures

Personal precautions	No action shall be taken involving any personal risk or without suitable training Evacuate surrounding areas Keep unnecessary and unprotected personnel from entering Do not touch or walk through spilled material Avoid breathing vapor or mist Provide adequate ventilation Wear appropriate respirator when ventilation is inadequate Put on appropriate personal protective equipment (see section 8)
Environmental precautions	Avoid dispersal of spilled material and runoff and contact with soil waterways drains and sewers Inform the relevant authorities if the product has caused environmental pollution (sewers waterways soil or air)
Large spill	Stop leak if without risk Move containers from spill area Approach release from upwind Prevent entry into sewers water courses basements or confined areas Wash spillages into an effluent treatment plant or proceed as follows Contain and collect spillage with non combustible absorbent material e g sand earth vermiculite or diatomaceous earth and place in container for disposal according to local regulations (see section 13) Dispose of via a licensed waste disposal contractor Contaminated absorbent material may pose the same hazard as the spilled product Note see section 1 for emergency contact information and section 13 for waste disposal
Small spill	Stop leak if without risk Move containers from spill area Dilute with water and mop up if water soluble or absorb with an inert dry material and place in an appropriate waste disposal container Dispose of via a licensed waste disposal contractor

7 Handling and storage

Handling	Put on appropriate personal protective equipment (see section 8) Eating drinking and smoking should be prohibited in areas where this material is handled stored and processed Workers should wash hands and face before eating drinking and smoking Do not ingest Avoid contact with eyes skin and clothing Avoid breathing vapor or mist Keep in the original container or an approved alternative made from a compatible material kept tightly closed when not in use Empty containers retain product residue and can be hazardous Do not reuse container
Storage	Store in accordance with local regulations Store in original container protected from direct sunlight in a dry cool and well ventilated area away from incompatible materials (see section 10) and food and drink Keep container tightly closed and sealed until ready for use Containers that have been opened must be carefully resealed and kept upright to prevent leakage Do not store in unlabeled containers Use appropriate containment to avoid environmental contamination

8 Expose controls/personal protection

Product name	Exposure limits
propylene glycol	**AIHA WEEL (United States 1/2007)** TWA 10 mg/m³ 8 hour(s)

Engineering measures No special ventilation requirements Good general ventilation should be sufficient to control worker exposure to airborne contaminants If this product contains ingredients with exposure limits use process enclosures local exhaust ventilation or other engineering controls to keep worker exposure below any recommended or statutory limits

Hygiene measures Wash hands forearms and face thoroughly after handling chemical products before eating smoking and using the lavatory and at the end of the working period Appropriate techniques should be used to remove potentially contaminated clothing Wash contaminated clothing before reusing Ensure that eyewash stations and safety showers are close to the workstation location

Personal protection

Respiratory Use a properly fitted air purifying or air fed respirator complying with an approved standard if a risk assessment indicates this is necessary Respirator selection must be based on known or anticipated exposure levels the hazards of the product and the safe working limits of the selected respirator

Hands Chemical resistant impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary

Eyes Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes mists gases or dusts

Skin Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product

9 Physical and chemical properties

Flash point	Closed cup Not applicable
Color	Blue
Odor	Odorless
pH	9 4
Solubility	Easily soluble in the following materials cold water

10 Stability and reactivity

Stability	The product is stable Under normal conditions of storage and use hazardous polymerization will not occur
Conditions to avoid	No specific data
Materials to avoid	No specific data
Hazardous decomposition products	Under normal conditions of storage and use hazardous decomposition products should not be produced

11 Toxicological information

Acute toxicity

Conclusion/Summary Not available

12 Ecological information

Environmental effects No known significant effects or critical hazards

13 Disposal considerations

Waste disposal The generation of waste should be avoided or minimized wherever possible Dispose of surplus and non recyclable products via a licensed waste disposal contractor Disposal of this product solutions and any by products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements Avoid dispersal of spilled material and runoff and contact with soil waterways drains and sewers

Disposal should be in accordance with applicable regional national and local laws and regulations

Refer to Section 7 HANDLING AND STORAGE and Section 8 EXPOSURE CONTROLS/PERSONAL PROTECTION for additional handling information and protection of employees

14 Transport information

Regulatory information	UN number	Proper shipping name	Classes	PG*	Additional information
DOT Classification	Not regulated				
TDG Classification	Not regulated				
ADR/RID Class	Not regulated				
IMDG Class	Not regulated				
IATA DGR Class	Not regulated				

PG Packing group

15 Regulatory information

U S Federal regulations TSCA 8(a) PAIR tributyl phosphate
United States inventory (TSCA 8b) At least one component is not listed

SARA 302/304/311/312 extremely hazardous substances No products were found
SARA 302/304 emergency planning and notification No products were found
SARA 302/304/311/312 hazardous chemicals propylene glycol
SARA 311/312 MSDS distribution chemical inventory hazard identification propylene glycol Immediate (acute) health hazard Delayed (chronic) health hazard

State regulations
Connecticut Carcinogen Reporting None of the components are listed
Connecticut Hazardous Material Survey None of the components are listed
Florida substances None of the components are listed
Illinois Chemical Safety Act None of the components are listed
Illinois Toxic Substances Disclosure to Employee Act None of the components are listed
Louisiana Reporting None of the components are listed
Louisiana Spill None of the components are listed
Massachusetts Spill None of the components are listed
Massachusetts Substances None of the components are listed
Michigan Critical Material None of the components are listed
Minnesota Hazardous Substances None of the components are listed
New Jersey Hazardous Substances None of the components are listed

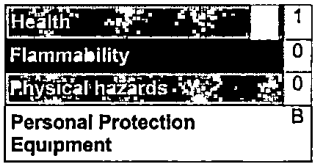
15 Regulatory information

New Jersey Spill None of the components are listed
New Jersey Toxic Catastrophe Prevention Act None of the components are listed
New York Acutely Hazardous Substances None of the components are listed
New York Toxic Chemical Release Reporting None of the components are listed
Pennsylvania RTK Hazardous Substances The following components are listed 1 2 PROPANEDIOL
Rhode Island Hazardous Substances None of the components are listed

United States inventory (TSCA 8b) **United States inventory (TSCA 8b)** At least one component is not listed

16 Other information

Hazardous Material Information System (U S A)



Caution HMIS® ratings are based on a 0-4 rating scale with 0 representing minimal hazards or risks and 4 representing significant hazards or risks Although HMIS® ratings are not required on MSDSs under 29 CFR 1910 1200 the preparer may choose to provide them HMIS® ratings are to be used with a fully implemented HMIS® program HMIS® is a registered mark of the National Paint & Coatings Association (NPCA) HMIS® materials may be purchased exclusively from J J Keller (800) 327-6868

The customer is responsible for determining the PPE code for this material

Date of printing	**15 05 2008**
Date of issue	**15 05 2008**
Date of previous issue	**14 05 2008**
Version	**1 01**

☑ **Indicates information that has changed from previously issued version**

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Facility Data Profile Notice No FP 15 00314600 2 Facility Data Profile Date 02/10/2015
TRIFID 20794HNSNP797WA Facility Name CONCRETE PIPE & PRECAST LLC JESSUP PLANT

Last updated 02/09/2015 09 29 59 PM ET

TRI Facility Data Profile

FACILITY INFORMATION

TRI Facility Identification No 20794HNSNP797WA
Facility Name and Address

CONCRETE PIPE & PRECAST LLC JESSUP PLANT
7970 WATERLOO RD
JESSUP (COUNTY HOWARD) MD 20794

Mailing Address

CONCRETE PIPE & PRECAST LLC - JESSUP PLANT
PO BOX 71
JESSUP, MD 20794

Technical Contact Information
Name JOHN M BLANKENSHIP **Phone** 804 393-8857
Email JBLANKENSHIP@CONCRETEPANDP COM

Public Contact Information
Name DAVID HOLSINGER **Phone** 540-437-7701
Email DHOLSINGER@CONCRETEPANDP COM

Reporting for An entire facility
Facility Type (Federal/GOCO/Commercial) COMMERCIAL

Parent Company Name CONCRETE PIPE & PRECAST LLC
Parent Company Dun & Bradstreet No NA

SIC Code	NAICS Code	Facility Dun & Bradstreet No
NA	327332	NA

PDF

Facility Data Profile Notice No FP 15-00314600-2 Facility Data Profile Date 02/10/2015

TRIFID 20794HNSNP797WA Facility Name CONCRETE PIPE & PRECAST LLC JESSUP PLANT

CHEMICAL REPORT SUMMARY

Reporting Year 2013

Chemical/Generic/ Mixture Name	Original Postmark Date	Postmark Date	Received Date	NOSE Error Count	NOTE Error Count	NDC Error Count	NDC (facility level) Error Count	Data Quality Alert Count
LEAD	02/09/2015	02/09/2015	02/09/2015	0	1	0	0	2

(W) = Withdrawn Chemical

RELEASE COMPARISON REPORT

Total On-site Releases and Off-site Disposal (sum of all of section 5 on-site release plus metals to a POTW plus section 6 2 off-site transfer for disposal (this includes only waste management codes for disposal M10, M41, M62, M63, M64, M65, M66, M67, M71, M72, M73, M79, M81, M82, M90 M91 M94 and M99) Note a median value is used for releases reported as range codes A = 5, B = 250 and C= 750)

Chemical	RY 2012	RY 2013	Difference
LEAD	4 62	150	145.38

Total Production Related Waste Management
(sum of 8 1 - 8 7 column B)

Chemical	RY 2012	RY 2013	Difference
LEAD	4 62	150	145 38

Facility Data Profile Notice No FP 15-00314600 2 Facility Data Profile Date 02/10/2015

TRIFID 20794HNSNP797WA Facility Name CONCRETE PIPE & PRECAST LLC JESSUP PLANT

Reporting Year 2013 **Error Summary Page** DCN 13 13 211 89346-4
File Number EX 15 00402403-0

Chemical Name LEAD

Error Counts For This Chemical	
NOSE Errors	0
NOTE Errors	1
NDC Errors	0
NDC Errors (Facility level)	0
DQA	2

TECHNICAL ERRORS IDENTIFIED FOR THIS CHEMICAL

NOTE # 1	You submitted an invalid code To correct this, consult the instructions for the proper table value and provide a valid code value [Specific location on the form of the invalid code is given]
Part II Section 8 9	PRODUCTION RATIO TYPE
DQA # 1	According to our preliminary analysis, your facility reported greater than a 25% change in total release (sum of all of section 5 on site releases plus metals to a POTW plus section 6 2 off-site transfers for disposal) as compared to last year Please review your release calculations to ensure accuracy If you determine that your calculations are correct please disregard this DQA
Part II Section 5,6	MULTI SECTION ALERT
DQA # 2	According to our preliminary analysis, your facility reported at least a 25% change in production related waste (8 1-8 7) as compared to last year Please review your release and other waste management calculations to ensure accuracy If you determine that your calculations are correct please disregard this DQA

Facility Data Profile Notice No FP 15 00314600 2 Facility Data Profile Date 02/10/2015

TRIFID 20794HNSNP797WA Facility Name CONCRETE PIPE & PRECAST LLC JESSUP PLANT

Part II Section 8 1-8 7 MULTI SECTION ALERT

Facility Data Profile Notice No FP 15-00314600-2 Facility Data Profile Date 02/10/2015

TRIFID 20794HNSNP797WA Facility Name CONCRETE PIPE & PRECAST LLC JESSUP PLANT

Reporting Year 2013 Form R Report

DCN 13 13 211 89346-4
File Number EX 15-00402403-0

Chemical Name LEAD

PART I

1 0 Reporting Year 2013

2 0 Trade Secret Information 2.1 Trade Secret NO 2.2 Sanitized NO

3 0 Certification Official Name JOHN BLANKENSHIP Title MANAGER Date Signed 02/09/2015

4.2 This Report Contains Information for a An entire facility YES b Part of a facility NO c. A Federal Facility NO GOCO NO

4 5 NAICS Code(s)	Withdrawal Reason
327332 Primary NAICS	Revision Reason

PART II

1 0 Toxic Chemical Identity

1 1 CAS Number or Chemical Category Code 7439921

1.2 Toxic Chemical or Chemical Category Name LEAD

1.3 Generic Chemical Name NA

1 4 Distribution of Each Member of the Dioxin and Dioxin like Compounds Category

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17

2.0 Mixture Component Identity

2 1 Generic Chemical Name Provided By Supplier NA

3 0 Activities and Uses of the Toxic Chemical at the Facility

3 1 Manufacture the toxic chemical

	If Produce or Import
A Produce NO	C For on site use/processing NO
	D For sale/distribution NO
B Import NO	E As a byproduct NO
	F As an impurity NO
3.2 Process the toxic chemical	A As a reactant NO
	B As a formulation component NO
	C As an article component YES
	D Repackaging NO
	E As an impurity NO
3.3 Otherwise use the toxic chemical	A As a chemical processing aid NO
	B As a manufacture aid NO
	C Ancillary or other use NO

4 1 Maximum Amount of the Toxic Chemical On Site at any Time During the Year 05 Range from 100000 To 999999 (pounds)

5 0 Quantity of the Toxic Chemical Entering Each Environmental Medium On site

Air Emissions	A Total Release	B. Basis of Estimate

Facility Data Profile Notice No FP 15-00314600-2 Facility Data Profile Date 02/10/2015

TRIFID 20794HNSNP797WA Facility Name CONCRETE PIPE & PRECAST LLC JESSUP PLANT

5 1 Fugitive Or Non Point Air Emissions	NA		
5.2 Stack Or Point Air Emissions	150 Pounds	E2 Emission Factor Site-specific	

5.3 Discharges to Receiving Streams or Water Bodies Stream or water body name	Reach Code	A Total Release	B. Basis of Estimate	C % from Stormwater
5.3 1 NA		NA		

Underground Injection/Land Disposal		A Total Release	B. Basis of Estimate
5 4 1	Class I Underground Injection Wells	NA	
5 4.2	Class II V Underground Injection Wells	NA	
5.5.1A	RCRA Subtitle C Landfills	NA	
5.5 1B	Other Landfills	NA	
5.5.2	Land Treatment / Application Farming	NA	
5.5.3 \	RCRA Subtitle C surface impoundments	NA	
5.5.3B	Other surface impoundments	NA	
5.5.4	Other Disposal	NA	

6 0 Transfers of the Toxic Chemical in Wastes to Off-site Locations

6 1 Discharges to Publicly Owned Treatment Works (POTWs)

6 1 1

POTW NAME NA

POTW Address

City County State Province Zip Country

A Quantity Transfered. NA B. Basis of Estimate

6.2 Transfers to Other Off site Locations

6.2 1 Off Site EPA Identification Number (RCRA ID No)

Off Site Location Name NA

Off-site Address

City State County Province Zip Country

Location under control of reporting facility or parent company NO

A Total Transfers	B Basis of Estimate	C Type of Waste Treatment/Disposal/ Recycling/Energy Recovery

7A On-Site Waste Treatment Methods & Efficiency

7A 1 a. General Waste Stream NA

b Waste Treatment Method Sequence

c Waste Treatment Efficiency

Facility Data Profile Notice No FP 15 00314600-2 Facility Data Profile Date 02/10/2015

TRIFID 20794HNSNP797WA Facility Name CONCRETE PIPE & PRECAST LLC JESSUP PLANT

7B On site Energy Recovery Processes

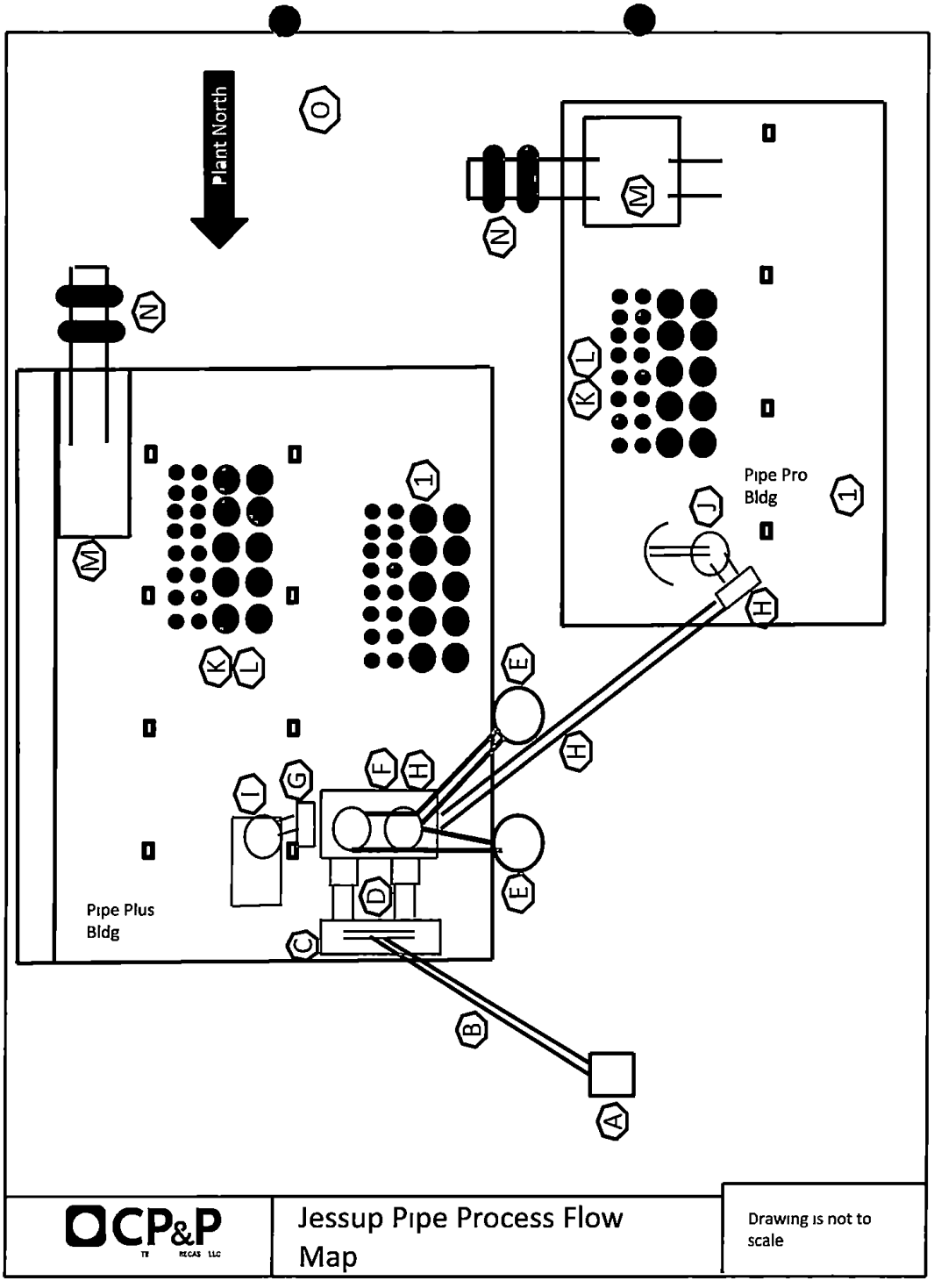
1 NA

7C On-site Recycling Processes

1 NA

8.0	Source Reduction & Recycling Activities * * Note All values are in Pounds	Col A Prior Year	Col B Current Year	Col C Following Year	Col D Second Following Year
8.1a	Total on-site disposal to UIC Class I Wells RCRA Subtitle C landfills and other landfills	NA	NA	NA	NA
8.1b	Total other on-site disposal or other releases	NA	150	150	150
8.1c	Total off site disposal to UIC Class I Wells RCRA Subtitle C landfills and other landfills	NA	NA	NA	NA
8.1d	Total other off-site disposal or other releases	NA	NA	NA	NA
8.2	Quantity Used For Energy Recovery On Site	NA	NA	NA	NA
8.3	Quantity Used For Energy Recovery Off-Site	NA	NA	NA	NA
8.4	Quantity Recycled On-Site	NA	NA	NA	NA
8.5	Quantity Recycled Off Site	NA	NA	NA	NA
8.6	Quantity Treated On-Site	NA	NA	NA	NA
8.7	Quantity Treated Off Site	NA	NA	NA	NA
8.8	Quantity Released as a Result of Remedial Catastrophic or One Time Events	NA			
8.9	[]Production ratio []Activity ratio	1 14			

8.10	Source Reduction Activities	Method A	Method B	Method C	Estimated Annual Reduction
8.10.1	NA				



CP&P TX RECAS LLC

Jessup Pipe Process Flow Map

Drawing is not to scale

Concrete Pipe Manufacturing Summary & Flow

A	Aggregates delivered from storage bins to hopper
B	Hopper transports aggregates (sand, stone) to storage bin inside
C	Storage bin supplies batch plant weight hopper
D	Weighed aggregate mix transported via skip hoist and delivered to mixer
E	Sealed mixer receives Fly ash and cement from sealed storage silos outside
F	Water and admixtures added to sealed mixer and batch is mixed
G	East mixer delivers dry cast mix directly to Pipe Plus machine
H	West mixer delivers dry cast mix via conveyor to Pipe Pro machine
I	Pipe Plus Machine places dry cast concrete into forms
J	Pro Machine places dry cast concrete into forms with a steel wire reinforcement cage
K	Forms are vibrated, hoisted out of machine and placed in storage area
L	Form is removed from "green" pipe and process repeated until production complete
M	Next day, dried concrete pipe is routed thru VROCK to remove rings
N	Pipe is transported out side via conveyor
O	Forklift transports finished concrete pipe to storage yard outside
P	While new pipe is being removed from storage area, new pipe manufacturing process begins again (Step A)

Tier 2 Online Submission Report

Reporting period From January 1 2013 to December 31 2013

Facility Name	Concrete Pipe & Products LLC Jessup Plant	**Facility ID**	5000658
Company Name	Concrete Pipe & Precast LLC	**Facility Email**	jblankenship@concretepandp com
Department Name		**Mail Address**	7955 Dorsey Run Road Jessup MD 20794
Physical Address	7955 Dorsey Run Road Jessup Howard county MD 20794 USA	**Latitude / Longitude**	39 1524589 / 76 78112529999998
Max No of Occupants	100 [x] Manned [ ] Unmanned	**Facility Phone Number**	(410) 799-2600
NAICS	327332	**Dun & Bradstreet**	TRIFID
TRI Facility ID		**RMP Facility ID**	

Subject to Emergency Planning under Section 302 of EPCRA (40 CFR part 355)? [ ] Yes [x] No

Subject to Chemical Accident Prevention under Section 112(r) of CAA (40 CFR part 68 Risk Management Program)? [ ] Yes [x] No

Facility Note

Contact Information	Name	Phone	Email	Mail address
Emergency Contact	Anthony Gentile	(540) 604 6988 (24-hour) (410) 799-2600 (Work)	agentile@concretepandp com	7955 Dorsey Run Road Jessup COUNTY MD 20794 USA
Facility Phone	Jessup Pipe Plant	(410) 799-2600 (FP)		
Owner / Operator	David Holsinger	(540) 437 7701 (Work)	dholsinger@concretepandp com	210 Stone Spring Road Harrisonburg COUNTY VA 22801 USA
Tier II Information Contact	John Blankenship	(804) 393-8857 (24 hour)	jblankenship@concretepandp com	11115 Johnson Road Ashland COUNTY VA 23005 USA

Chemical Inventory Information

Chemical Description	Physical & Health Hazards	Inventory	Mixture components	Storage locations and codes (Non Confidential)
CAS Trade Secret [ ] Chem Name ADMIXTURE Pure [ ] Mixture [X] Solid [ ] Liquid [X] Gas [ ] EHS [ ] Below Reporting Thresholds [ ] **State Specific Information** No State specific information	Fire [ ] Pressure [ ] Reactive [ ] Acute [ ] Chronic [X]	24,999 Max Daily Amount 24,999 Avg Daily Amount 365 No of Days On site		1) AST at Plant Building in container Type Above ground tank Pressure Ambient pressure Temperature Ambient temperature

Tier 2 Online Submission Report

Reporting period From January 1 2013 to December 31, 2013

Chemical Description	Physical & Health Hazards	Inventory	Mixture components	Storage locations and codes (Non Confidential)
CAS Trade Secret [ ] Chem Name AGGREGATES Pure [ ] Mixture [X] Solid [X] Liquid [ ] Gas [ ] EHS [ ] Below Reporting Thresholds [ ] **State Specific Information** No State specific information	Fire [ ] Pressure [ ] Reactive [ ] Acute [ ] Chronic [X]	9,999,999 Max Daily Amount 9,999,999 Avg Daily Amount 365 No of Days On site		1) Hopper on ground and in building Type Silo Pressure Ambient pressure Temperature Ambient temperature
CAS 68131748 Trade Secret [ ] Chem Name Coal Ash Pure [ ] Mixture [X] Solid [X] Liquid [ ] Gas [ ] EHS [ ] Below Reporting Thresholds [ ] **State Specific Information** No State specific information	Fire [ ] Pressure [ ] Reactive [ ] Acute [ ] Chronic [X]	499,999 Max Daily Amount 99,999 Avg Daily Amount 365 No of Days On site		1) Silo outside Plant Bldg Type Silo Pressure Ambient pressure Temperature Ambient temperature
CAS 68334305 Trade Secret [ ] Chem Name Diesel Fuel Pure [ ] Mixture [X] Solid [ ] Liquid [X] Gas [ ] EHS [ ] Below Reporting Thresholds [ ] **State Specific Information** No State specific information	Fire [X] Pressure [ ] Reactive [ ] Acute [ ] Chronic [X]	24,999 Max Daily Amount 9,999 Avg Daily Amount 365 No of Days On site		1) AST Tank by Maintenance Shop Type Above ground tank, Pressure Ambient pressure Temperature Ambient temperature
CAS 64741588 Trade Secret [ ] Chem Name Gas Oils Pure [ ] Mixture [X] Solid [ ] Liquid [X] Gas [ ] EHS [ ] Below Reporting Thresholds [ ] **State Specific Information**	Fire [X] Pressure [ ] Reactive [ ] Acute [ ] Chronic [X]	24,999 Max Daily Amount 9,999 Avg Daily Amount 365 No of Days On site		1) AST at Maintenance Bldg & Plant Bldg Type Above ground tank Pressure Ambient pressure, Temperature Ambient temperature

Tier 2 Online Submission Report

Reporting period From January 1 2013 to December 31 2013

Chemical Description	Physical & Health Hazards	Inventory	Mixture components	Storage locations and codes (Non Confidential)
No State specific information				
CAS 65597151 Trade Secret [ ] Chem Name PORTLAND CEMENT Pure [ ] Mixture [X] Solid [X] Liquid [ ] Gas [ ] EHS [ ] Below Reporting Thresholds [ ] **State Specific Information** No State specific information	Fire [ ] Pressure [ ] Reactive [ ] Acute [ ] Chronic [X]	499,999 Max Daily Amount 499,999 Avg Daily Amount 365 No of Days On site		1) Silo outside manufacturing building Type Silo Pressure Ambient pressure Temperature Ambient temperature

State Specific Information

No State specific information

Certification

I certify under penalty of law that I have personally examined and am familiar with the information submitted in pages __ through __ and that based on my inquiry of those individuals responsible for obtaining the information I believe that the submitted information is true accurate and complete

John M Blankenship		Feb 08 2015
Name and official title of owner/operator OR owner/operator's authorized representative	Signature	Date signed

Ed Eagle

From	John Blankenship
Sent	Monday February 09 2015 9 25 PM
To	Ed Eagle
Subject	FW TRI MEweb submission has been certified and sent to a TDX member state

John M Blankenship PE
Concrete Pipe & Precast LLC
(804) 752-1412 office
(804) 393 8857 cell
jblankenship@concretepandp com

We are committed to making Concrete Pipe & Precast the preferred supplier for our customers by delivering outstanding value continuous innovation and exceptional customer experience by consistently fulfilling our promise
Not Just Concrete Concrete Solutions

- -Original Message ---
From helpdesk@epacdx net [mailto helpdesk@epacdx net]
Sent Monday February 09 2015 9 15 PM
To John Blankenship
Subject TRI MEweb submission has been certified and sent to a TDX member state

The TRI MEweb submission for the facility and chemical(s) listed below has been prepared certified and sent to EPA You have reported that your facility is located in the state of MARYLAND

Please be aware that the state of MARYLAND is participating in EPA s TRI Data Exchange This certified submission will be electronically forwarded to MARYLAND satisfying your obligation to report to both EPA and the state in which the facility is located (MARYLAND)

You may wish to print a copy of this receipt and keep it for your records You may also print a copy of your state submission by navigating to the Review tab in TRI MEweb and clicking the Prepare State/Tribal forms" button in the Certified Submission Summary" table and selecting your facility account Do not send this receipt to EPA

If you have any questions regarding this email please contact the CDX Help Desk at the phone numbers listed below for further assistance Please reference the information below when contacting the CDX Help Desk

- - REFERENCE INFORMATION ---
TRI Facility ID 20794HNSNP797WA
Facility CONCRETE PIPE & PRECAST LLC - JESSUP PLANT
7970 WATERLOO RD
JESSUP MARYLAND 20794

Chemical Name	RY	CAS	Form	Revision	Withdrawal
Lead	2013	7439921	R	No	No

Prepared By jblankenship@concretepandp com Date Transmitted for Certification Feb 9 2015 8 49 43 PM
Certifying Official Name John Blankenship
Title Manager

E mail jblankenship@concretep[illegible] .com
Date Certified and Sent to EPA and State Feb 9 2015 9 14 26 PM

- -- CDX HELP DESK ----
Phone (toll free) +1 (888) 890 1995
Phone (toll) (970) 494 5500
Email helpdesk@epacdx net
The CDX Help Desk is available Monday through Friday 8 00 AM to 6 00 PM Eastern Time

Access CDX Home https //cdx epa gov/

The pounds of Lead and Mercury did not exceed the reporting thresholds in 2013

2013 TRI Data Concrete Pipe & Precast - Jessup					
	Cement	Fly Ash			
Metal	Proc in lbs	Proc in lbs	Totals	Released	**Deminimus Limit / Reporting Threshold**
Arsenic	117 78	3 49	121 27	0 12	1% 25,000
Barium	2682 23	1425 47	4107 69	4 11	1% 25 000
Berylium	0 00	0 00	0 00	0 00	1%, 25,000
Cadmium	19 24	3 49	22 73	0 02	1%, 25,000
Chromium	1298 35	186 46	1484 81	1 48	1% 25 000
Cobalt	0 00	0 00	0 00	0 00	1%, 25 000
Copper	1455 79	3 49	1459 27	1 46	1%, 25,000
Lead	**129 25**	**20 77**	**150 02**	**0 15**	**none (PBT), 100**
Manganese	3537 43	9932 96	13470 39	13 47	1% 25,000
Mercury	**3 87**	0 14	4 01	0 00	**none (PBT), 10**
Nickel	748 30	3 49	751 79	0 75	1% 25,000
Selenium	41 59	3 49	45 08	0 05	1% 25,000
Silver	19 24	1 74	20 98	0 02	1%, 25 000
Tin	0 00	0 00	0 00	0 00	1%, 25,000
Vanadium	0 00	0 00	0 00	0 00	1% 25 000
Zinc	2934 90	3 49	2938 39	2 94	1% 25 000
Processed	Cement	Fly Ash	Totals	**Production Activity Ratio**	
2013 Tons	9698	1739	11437	**2011 =**	**1 14**
2012 Tons	7029	3028	10057		

Plant Name	Concrete Pipe & Precast Jessup	
TRI Reporting Year	2013	
Cement Processed (In lbs)	19 396 000	9698 00 Tons 2013
Cement Sent For Off-site Disposal (In lbs)	0	7029 00 Tons 2012
Cement Spilled Into Waterway (In lbs)	0	1 38 ProductionActivity Ratio (2013/2012)
		Cement

Metal	mg/kg	Metal Processed (In lbs)	Metal Released Into Air (In lbs)	Metal Released Into Water (In lbs)	Metal Released Into Soil (In lbs)	Deminimus Limit / Reporting Threshold
Arsenic	6 06	117 78	0 12	0 00	0 00	1% 25 000
Barium	138	2682 23	2 68	0 00	0 00	1% 25 000
Berylium		0 00	0 00	0 00	0 00	1% 25 000
Cadmium	0 99	19 24	0 02	0 00	0 00	1% 25 000
Chromium	66 8	1298 35	1 30	0 00	0 00	1% 25 000
Cobalt		0 00	0 00	0 00	0 00	1% 25 000
Copper	74 9	1455 79	1 46	0 00	0 00	1% 25 000
Lead	6 65	129 25	0 13	0 00	0 00	none (PBT) 100
Manganese	182	3537 43	3 54	0 00	0 00	1% 25 000
Mercury	0 199	3 87	0 00	0 00	0 00	none (PBT) 10
Nickel	38 5	748 30	0 75	0 00	0 00	1% 25 000
Selenium	2 14	41 59	0 04	0 00	0 00	1% 25 000
Silver	0 99	19 24	0 02	0 00	0 00	1% 25 000
Tin		0 00	0 00	0 00	0 00	1% 25 000
Vanadium		0 00	0 00	0 00	0 00	1% 25 000
Zinc	151	2934 90	2 93	0 00	0 00	1% 25 000
			Maximum	Cement on Site	Lead on Site	TRI Code
CAS # for Lead is 7439-92 1			Pounds	416 000	2 77	01

Sources of Data Cement samples taken at the Dunn plant in 2006

Plant Name	Concrete Pipe & Precast Jessup	
TRI Reporting Year	2013	
Fly Ash Processed (In lbs)	3 478,000	1739 Tons 2013
Fly Ash Sent For Off site Disposal (In lbs)	0	3028 Tons 2012
Fly Ash Spilled Into Waterway (In lbs)	0	0 57 ProductionActivity Ratio (2013/2012)
	Flyash	

Metal	mg/kg	Metal Processed (In lbs)	Metal Released Into Air (In lbs)	Metal Released Into Water (In lbs)	Metal Released Into Soil (In lbs)	Dominimus Limit / Reporting Threshold
Arsenic	1	3 49	0 00	0 00	0 00	1% 25 000
Barium	409	1425 47	1 43	0 00	0 00	1% 25 000
Beryllium		0 00	0 00	0 00	0 00	1% 25 000
Cadmium	1	3 49	0 00	0 00	0 00	1% 25 000
Chromium	53 5	186 46	0 19	0 00	0 00	1% 25 000
Cobalt		0 00	0 00	0 00	0 00	1% 25 000
Copper	1	3 49	0 00	0 00	0 00	1% 25 000
Lead	5 96	20 77	0 02	0 00	0 00	none (PBT) 100
Manganese	2850	9932 96	9 93	0 00	0 00	1% 25 000
Mercury	0 04	0 14	0 00	0 00	0 00	none (PBT) 10
Nickel	1	3 49	0 00	0 00	0 00	1% 25 000
Selenium	1	3 49	0 00	0 00	0 00	1% 25 000
Silver	0 5	1 74	0 00	0 00	0 00	1% 25 000
Tin		0 00	0 00	0 00	0 00	1% 25 000
Vanadium		0 00	0 00	0 00	0 00	1% 25 000
Zinc	1	3 49	0 00	0 00	0 00	1% 25 000
			Maximum	Fly Ash on Site	Lead on Site	TRI Code
CAS # for Lead Is 7439 92 1			Pounds	150 000	0 89	01

Sources of Data
EPRI PISCES Database (August 14 1998) mean value
EPRI TR 108014 Oil Combustion By Products Chemical Characteristics Management Practices and Groundwater
EPRI EA 5176 Inorganic and Organic Constituents in Fossil Fuel Combustion Residues
EPRI EA 5321 Chemical Characterization of Fossil Fuel Combustion Wastes

CONCRETE PIPE & PRECAST, LLC
210 STONE SPRING ROAD
HARRISONBURG VA 22801

BANK OF AMERICA
68-1/510 VA

20112

Date 01/30/2014

$ $ 1 000 00

Sum of One Thousand & 00/100 Dollars DOLLARS

PAY TO THE ORDER OF
MDE CRTK
P O Box 1417
BALTIMORE MD 21203

MEMO

(b) (6)

CONCRETE PIPE & PRECAST, LLC 20112

Company MDE CRTK Vendor # 004558 Check No 20112

Invoice Number	Date	Invoice Notes	Invoice Balance	Discount	Adjustment	Total Applied
7231	01/24/2014		1 000 00	0 00	0 00	1 000 00

CP&P

Totals	1 000 00	0 00	0 00	1 000 00

Check Date 01/30/2014

For MDE use only PCA 13764 & 13768
OBJ 5709

MARYLAND DEPARTMENT OF THE ENVIRONMENT
1800 Washington Boulevard Baltimore MD 21230

Invoice Request No 7231

CRTK FUND APPLICATION

Invoice Request Date 01/24/2014

Prepared By John Blankenship

Prepared Date 01/24/2014

To

HANSON PIPE & PRODUCTS INC
CONCRETE PIPE & PRECAST LLC
P O BOX 71
JESSUP MD 20794

Company ID 528

Report Year 2013

Fee Types	FEE ($)
Hazardous Substance Total	$1 600 00
Sub Total	$1 600 00
Application Fee	$100 00
Fee Total	$1 700 00
Cap Amount	$1 000 00
Invoice Amount	$1 000 00

Payment information
Check
MDE CRTK
PO Box 1417
Baltimore MD 21203
Please include a copy of this application with your remittance

Payment by wire transfer
Name of Bank Bank of America
Address 100 S Charles Street
Baltimore MD 21202
MDE's Account Number (b) (6)
Routing Number ACH (b) (6)
Wire Transfer (b) (6)
SWIFT Code

Applicant hereby acknowledges that this application constitutes an amount due and payable to the Maryland Department of the Environment and failure to pay the full amount due may result in transferring this debt to the Central Collections Unit (CCU) to collect the balance due including a 17% collection fee

Emergency and Hazardous Chemical Inventory

Reporting Period From January 1 2013 to December 31 2013

☑ Annual ☐ Revision ☑ Facility information was changed since the Last Submission

Facility Identification

ID	4455		
Name	CONCRETE PIPE & PRECAST LLC		
Company Name	HANSON PIPE & PRODUCTS INC		
Street	7955 DORSEY RUN ROAD	City	JESSUP
County	Howard		
Fire Department	Howard County Fire & Rescue	LEPC Name	Howard County LEPC
State	MD	Zip	20794
Phone	(410) 799-2600	Lat/Long	39 152427/ 76 777889
Fax	(410) 799-0436	Email	
Maximum Occupants	100	☑ Manned	☐ Unmanned

SIC Code	3272	Dun & Bradstreet	
NAICS	327332	TRIFID	

Subject to Emergency Planning under Section 302 of EPCRA (40 CFR part 355)? ☐ Yes ☑ No

Subject to Chemical Accident Prevention under Section 112(r) of CAA (40 CFR part 68 Risk Management Plan)? ☐ Yes ☑ No
RMP Facility ID

Subject to Toxic Release Inventory under Section 313 of EPCRA (40 CFR part 372)? ☐ Yes ☑ No
TRI Facility ID

Owner/Operator Details

Name	CONCRETE PIPE & PRECAST LLC		
Address	11115 JOHNSON ROAD ASHLAND VA 23005 United States		
Phone	(804) 798 6068	Email	jblankenship@concretepandp.com

Parent Company Details

Name			
Address			
Phone		Email	
Dun and Bradstreet			

Facility Emergency Coordinator

Name	Todd Epperly	Title	Plant Manager
Phone	(410) 799 2600	24 Hr Phone	(443) 994 6828
Email	tepperly@concretepandp.com		

Mailing Address if different from Facility ID Address

Company	CONCRETE PIPE & PRECAST LLC	Attn	
Street Address 1	PO BOX 71	Street Address 2	
City	JESSUP	State	MD
Zip	20794	Phone	(412) 601 2379
Country	United States		

Tier II Information Contact

Name	John Blankenship	Title	Pipe Specialist
Phone	(804) 393-8557	24 Hr Phone	(804) 393-8557
Email	jblankenship@concretepandp.com		

Emergency Contacts

SIN	Name	Title	Phone	24 Hr Phone	Email
1	TODD EPPERLY	PLANT MANAGER	(410) 799-2600	(443) 994 6828	tepperly@concretepandp.com

Mixture Components reported in this Appendix

Certification I certify under penalty of law that I have personally examined and am familiar with the information submitted and that based on my inquiry of those individuals responsible for obtaining the information I believe that the submitted information is true accurate and complete

Job Blankenship Pipe Specialist — January 24 2014

Name and official title of owner/operator or authorized representative — Date — Signature

Optional Attachments
- ☐ Site Plan
- ☐ Site Coordinate Abbreviation
- ☐ Other Safeguard measures
- ☐ Emergency Response Plan

Chemical Description		Physical & Health Hazard		Inventory	
Chemical ID	28788	☐ Fire	16400	Max Daily Amt(lbs)	
Chemical Information was changed since the Last Submission	☑	☐ Pressure	06	Max Daily Amount Code	
CAS	N/A	☐ Reactivity	6200	Ave Daily Amount (lbs)	
Trade Secret	☐	☐ Immediate (Acute)	05	Ave Daily Amount Code	
Chemical Name	ADMIXTURES	☑ Delayed (Chronic)	365	No of days on site	
EHS ☐	Contains EHS ☐				
EHS Name					
☐ Pure ☑ Mix ☐ Solid ☑ Liquid ☐ Gas					
☐ Chemical is reported voluntarily and is not present in reportable quantities or exempt from reporting for Section 311(e) (MSDS/Chemical List) Section 312 (annual Tier Two Reporting) and the OSHA Hazard Communication Act regulation					

Storage Codes & Location						
Container Type	Pressure	Temperature	Storage Location	Description	Lat/Long	Max Amt At Location(lbs)
[A] ABOVE GROUND TANK	[1] AMBIENT PRESSURE	[4] AMBIENT TEMPERATURE	AST AT PLANT BLD		0/0	

Chemical Description		Physical & Health Hazards		Inventory	
Chemical ID	16932	☐ Fire	8000000	Max Daily Amt(lbs)	
Chemical Information was changed since the Last Submission	☑	☐ Pressure	12	Max Daily Amount Code	
CAS	N/A	☐ Reactivity	4000000	Ave Daily Amount (lbs)	
Trade Secret	☐	☐ Immediate (Acute)	12	Ave Daily Amount Code	
Chemical Name	AGGREGATES	☑ Delayed (Chronic)	365	No of days on site	
EHS ☐	Contains EHS ☐				
EHS Name					
☐ Pure ☑ Mix ☑ Solid ☐ Liquid ☐ Gas					
☐ Chemical is reported voluntarily and is not present in reportable quantities or exempt from reporting for Section 311(e) (MSDS/Chemical List) Section 312 (annual Tier Two Reporting) and the OSHA Hazard Communications Act regulations					

Storage Codes & Location						
Container Type	Pressure	Temperature	Storage Location	Description	Lat/Long	Max Amt At Location(lbs)
[H] OTHER Desc	[1] AMBIENT PRESSURE	[4] AMBIENT TEMPERATURE	HOPPERS OUTSIDE MANUFACTURING BUILDING		0/0	

Chemical Description		Physical & Health Hazards		Inventory	
Chemical ID	11383	☐ Fire	360000	Max Daily Amt(lbs)	
Chemical Information was changed since the Last Submission	☑	☐ Pressure	10	Max Daily Amount Code	
CAS	N/A	☐ Reactivity	180000	Ave Daily Amount (lbs)	
Trade Secret	☐	☐ Immediate (Acute)	10	Ave Daily Amount Code	
Chemical Name	CEMENT	☑ Delayed (Chronic)	365	No of days on site	
EHS ☐	Contains EHS ☐				
EHS Name					
☐ Pure ☑ Mix ☑ Solid ☐ Liquid ☐ Gas					
☐ Chemical is reported voluntarily and is not present in reportable quantities or exempt from reporting for Section 311(e) (MSDS/Chemical List) Section 312 (annual Tier Two Reporting) and the OSHA Hazard Communications Act regulations					

Storage Codes & Location						
Container Type	Pressure	Temperature	Storage Location	Description	Lat/Long	Max Amt At Location(lbs)
[H] SILO	[1] AMBIENT PRESSURE	[4] AMBIENT TEMPERATURE	SILOS OUTSIDE MANUFACTURING BUILDING		0/0	

Chemical Description

Chemical ID: 11380
Chemical Information was changed since the Last Submission: ☑
CAS: N/A
Trade Secret: ☐
Chemical Name: **DIESEL**
EHS: ☐ Contains EHS: ☐
EHS Name
☐ Pure ☑ Mix ☐ Solid ☑ Liquid ☐ Gas
☐ Chemical is reported voluntarily and is not present in reportable quantities or is exempt from reporting for Section 311( ) (MSDS/Chemical List) Section 312 (annual Tier Two Reporting) and the OSHA Hazard Communications Act regulations

Physical & Health Hazard / Inventory

☑ Fire	13400	Max Daily Amt(lbs)	
☐ Pressure	08	Max Daily Amount Code	
☐ Reactivity	6700	Ave Daily Amount (lbs)	
☐ Immediate (Acute)	05	Ave Daily Amount Code	
☑ Delayed (Chronic)	365	No of days on site	

Storage Code & Location

Container Type	Pressure	Temperature	Storage Location	Description	Lat/Long	Max Amt At Location(lbs)
[A] ABOVE GROUND TANK	[1] AMBIENT PRESSURE	[4] AMBIENT TEMPERATURE	AST TANK BY MAINTENANCE SHOP		0/0	

Chemical Description

Chemical ID: 11382
Chemical Information was changed since the Last Submission: ☑
CAS: N/A
Trade Secret: ☐
Chemical Name: **FLY ASH**
EHS: ☐ Contains EHS: ☐
EHS Name
☐ Pure ☑ Mix ☑ Solid ☐ Liquid ☐ Gas
☐ Chemical is reported voluntarily and is not present in reportable quantities or is exempt from reporting for Section 311(e) (MSDS/Chemical List) Section 312 (annual Tier Two Reporting) and the OSHA Hazard Communications Act regulations.

Physical & Health Hazards / Inventory

☐ Fire	200000	Max Daily Amt(lbs)	
☐ Pressure	10	Max Daily Amount Code	
☐ Reactivity	100000	Ave Daily Amount (lbs)	
☐ Immediate (Acute)	10	Ave Daily Amount Code	
☑ Delayed (Chronic)	365	No of days on site	

Storage Code & Location

Container Type	Pressure	Temperature	Storage Location	Description	Lat/Long	Max Amt At Location(lbs)
[H] SILO	[1] AMBIENT PRESSURE	[4] AMBIENT TEMPERATURE	SILO OUTSIDE MANUFACTURING BUILDING		0/0	

Chemical Description

Chemical ID: 28785
Chemical Information was changed since the Last Submission: ☑
CAS: N/A
Trade Secret: ☐
Chemical Name: **OILS**
EHS: ☐ Contains EHS: ☐
EHS Name
☐ Pure ☑ Mix ☐ Solid ☑ Liquid ☐ Gas
☐ Chemical is reported voluntarily and is not present in reportable quantities or is exempt from reporting for Section 311(e) (MSDS/Chemical List) Section 312 (annual Tier Two Reporting) and the OSHA Hazard Communications Act regulations

Physical & Health Hazards / Inventory

☑ Fire	19800	Max Daily Amt(lbs)	
☐ Pressure	08	Max Daily Amount Code	
☐ Reactivity	9900	Ave Daily Amount (lbs)	
☐ Immediate (Acute)	05	Ave Daily Amount Code	
☑ Delayed (Chronic)	365	No of days on site	

Storage Code & Location

Container Type	Pressure	Temperature	Storage Location	Description	Lat/Long	Max Amt At Location(lbs)
[A] ABOVE GROUND TANK	[1] AMBIENT PRESSURE	[4] AMBIENT TEMPERATURE	AST AT MAINT BLD AND PLANT BLD		0/0	

Site Survey Map

Hanson Pipe & Precast LLC

Prepared by Millman National Land Services

(NOTE: Map too large to be scanned. Original map is in the folder located in the LCD Records Center.)

Re. Conc e Pipe & Precast (Chesapeake, VA) 4/21/15

Spoke to John O'Bankenship, who indicated to me that the lead is contained in small amounts used in the cement processed to manufacture the concrete pipe. He also indicated to me that the lead usage for 2013 was 66.83 + 20.50 = 87.32 lbs (< 100 lbs).

Chesapeake, VA facility only.

CGy 4/21/15